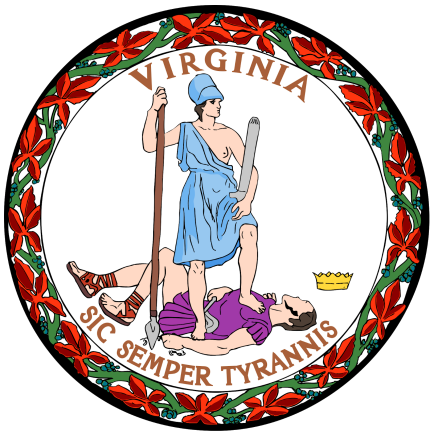

Commonwealth of Virginia

Office of Governor Ralph S. Northam

VIRGINIA COUNCIL ON ENVIRONMENTAL JUSTICE

2020 ANNUAL REPORT

JULY 15, 2020

Report prepared by members of the Virginia Council on Environmental Justice

TABLE OF CONTENTS

A LETTER FROM THE CO-CHAIRS OF THE ADVISORY BOARD

It has been an eventful year with COVID-19 interrupting the progress of the Board. We had so hoped to conduct two site visits, one to the Hampton Roads area, the birthplace of the Virginia Environmental Justice movement and to the SW area of the state where many mining activities take place and the Radford Arsenal is located.

No one could have predicted that the virus would interrupt our second year. The good news is that legislation passed and our Council is now permanent and we can begin again in July. There is so much work left to do, and we look forward to the future of the Council.

We requested a briefing on the impact of the Coronavirus pandemic. There was not an opportunity for that to take place at our last meeting on June 25th. It is our hope that we can begin our work at the first meeting of the new Council with that briefing. Reports of health disparities related to COVID-19 have been linked to higher rates of comorbidities, poor quality health facilities, lack of access to care, less ability to social distance due to residence in densely populated communities. We would like to hear how Virginia has addressed these disparities for its residents of color and for other high risk populations in the state. The disparities in deaths due to COVID-19 are rooted in the same issues that cause disparities in exposure to environmental pollution which is at the core of the environmental justice framework.

In drafting this report we relied heavily upon comments we received from citizens who brought their concerns to our attention, often traveling long distances at great sacrifice so that we could hear their voices. The communities of Buckingham, Hampton Roads, Charles City County, to name a few, have asked for the Council's assistance as they struggle to protect themselves and their neighbors from environmental threats. We know there are other communities at risk. We view it as our responsibility to seek them out and to highlight their concerns as we make recommendations to the Governor.

Sadly, I, Beth Roach, am leaving the Council. I have started a new business enterprise, and because of our purchase of farmland my partner and I are relocating to eastern North Carolina. I will continue to consult with the Council in a new role with the North Carolina Commission on Indian Affairs that builds capacity for climate resilience in Albemarle-Pamlico Region Tribal Communities. The project, developed by Albemarle Pamlico National Estuary Partnership along with representatives from Tribal organizations in the Albemarle-Pamlico watershed and coastal plain, is designed to increase engagement among Tribal communities, government agencies, and universities, as well as to acknowledge the unique knowledge and cultural perspectives of these communities surrounding impacts associated with climate change. Virginia and North Carolina tribes are deeply intertwined, and I look forward to being a bridge between these communities and stakeholders throughout our watershed. This report highlights disparities in tribal representation in critical mapping tools. We hope that this Council and your administration will continue to work with tribal communities to ensure proper engagement.

Janet A. Phoenix, Chair ***Beth Roach***, Chair

Background of the VCEJ

Addressing environmental injustice has been and continues to be a focal point of Governor Northam's administration. Establishing a Virginia state advisory council on environmental justice was part of his campaign platform in 2017. Because this issue is so important, Governor Northam continued Governor McAuliffe's Environmental Justice Council through his first term. Governor Northam issued EO-29 establishing the Virginia Council on Environmental Justice (VCEJ) on January 22, 2019.

Environmental justice is defined by the U.S. Environmental Protection Agency as the fair treatment and meaningful involvement of all people regardless of race, color, faith, national origin, or income, in the development, implementation, and enforcement of environmental laws, regulations, and policies.

No population, especially minority, low-income, or historically-underserved communities, should face higher levels or greater impacts of pollution than other populations. Some of these communities face more severe environmental degradation, which disproportionately affects public health and quality of life. The shifting demographics of urban areas, loose permitting requirements, and exclusionary zoning laws have channeled racial and ethnic minorities into areas with a larger degree of environmental degradation and reduced funding

Recommendations to ensure that environmental justice concerns are understood, and that a framework is in place to address these concerns, are extremely valuable to the Commonwealth. While some state agencies incorporate environmental justice into their review process, there is currently no consistency in how these issues are evaluated. The Virginia Council on Environmental Justice (VCEJ) will help generate proposals for consistent approaches to evaluate environmental justice.

VCEJ Membership

Executive Members

- **Janet A. Phoenix, MD, MPH,** *Co-Chair*
- **Beth Roach,** *Co-Chair*

Current Members

1. **Nikki Bass** of Washington, D.C., Tribal Councilwoman, Nansemond Indian Nation
2. **Tom Benevento** of Harrisonburg, Co-Director, New Community Project, MSS
3. **Jevonte Blount, MPA** of Hampton, Asst. Program Coordinator, John Tyler Community College
4. **Herbert Brown** of Warfield, Marketing Manager, Browntown Farms
5. **Hope F. Cupit** of Bedford, President and CEO, Southeast Rural Community Assistance Program
6. **Taysha DeVaughan** of Wise, President, Southern Appalachian Mountain Stewards
7. **Reverend Dr. Mike Ellerbrock** of Blacksburg, Professor, Department of Agricultural and Applied Economics, Virginia Tech and Minister, Catholic Diocese of Richmond
8. **Jay Ford** of Belle Haven, Virginia Policy Advisor, Chesapeake Bay Foundation and Owner, Shine and Rise Farm
9. **Reverend Dr. Faith B. Harris** of Varina, Vice Chair, Virginia Interfaith Center for Public Policy and Chair, Virginia Interfaith Power and Light
10. **Reverend Dr. Lisa Johnson** of Accomack, Diversity and Inclusion Program Specialist, NASA Goddard Space Flight Center
11. **Nathaniel X. Marshall** of Lynchburg, Equal Employment Opportunities Manager, BWX Technologies, Inc.
12. **Janet A. Phoenix, MD, MPH** of Herndon, Assistant Research Professor, George Washington University
13. **Beth Roach** of Richmond, Tribal Councilwoman, Nottoway Indian Tribe
14. **EJ Scott** of Manassas, Environmental Program Manager, Sev1Tech, Inc.

Ex Officio Members

- **Nathan Burrell,** Deputy Director of Government and Community Relations, Virginia Department of Conservation and Recreation
- **Bettina Ring,** Secretary of Agriculture and Forestry, Commonwealth of Virginia
- **Matthew J. Strickler,** Secretary of Natural Resources, Commonwealth of Virginia

Virginia State Government Staffing Liaisons

- **Meryem Karad,** Policy and Communications Advisor to the Secretary of Natural Resources
- **Christiana Lockwood,** Senior Policy Advisor, Virginia Department of Environmental Quality
- **Katie Sallee,** Confidential Assistant to the Secretary of Natural Resources

VCEJ Meetings

The VCEJ held four general board meetings and eight committee meetings this year:

- July 12th, 2019
- September 12, 2019 *(Policy, Permits, Programs, and Procedures Committee)*
- September 18, 2019
- October 30, 2019 *(Public Health, Climate Change Committee)*
- December 5, 2019 *(Outdoor Access Committee)*
- January 17, 2020 *(Clean Energy Transition Committee)*
- May 28, 2020
- June 4, 2020 *(Policy, Permits, Programs, and Procedures Committee)*
- June 18, 2020 *(Public Health Committee)*
- June 18, 2020 *(Clean Energy Transition Committee)*
- June 22, 2020 *(Policy, Permits, Programs, and Procedures Committee)*
- June 25, 2020

VCEJ Committees

On Friday, July 12, 2019 the current council held its first meeting and five standing committees were established: Policies, Permits, Programs, Procedures (including local government, partnerships, and communication), Outdoor Recreation Access Committee, Climate Change and Resilience Committee, the Public Health Committee, and the Clean Energy & Transportation Committee. The standing committees fulfill all directives in Governor Northam's Executive Order 29 establishing the Virginia Council on Environmental Justice. The charge of each committee are as follows:

- **Policy, Permits, Programs, and Procedures**

  Committee Members: Jay Ford (Chair), Faith Harris, Jevonte Blount, Raul Garcia, Nathaniel Marshall, EJ Scott, and Hope F. Cupit

- **Outdoor Access**

  Committee Members: Nathan Burrell (Chair), Beth Roach, Taysha DeVaughn, Jevonte Blount, Herbert Brown, Jay Ford, and Mike Ellerbrock

- **Climate Change & Resilience**

  Committee Members: Faith Harris (Chair), Jay Ford, Taysha DeVaughn, Nikki Bass, Mike Ellerbrock, Tom Benevento, and Nathan Burrell

- **Public Health**

  Committee Members: Janet Phoenix *(Chair)*, Nikki Bass, Taysha DeVaughn, Lisa Johnson, Nathan Burrell, and Hope F. Cupit

- **Clean Energy & Transportation**

  Committee Members: Taysha DeVaughan (Chair) and Tom Benevento

Policies, Permits, Programs, and Procedures Committee Report

Charge of Committee: *Provide guidance for the development of environmental justice in state policies, permits, procedures, and programs in order to create a long-term framework that engages the community, state agencies, and other stakeholders in a fair and inclusive approach that reflects, protects, and ensures an equitable voice for all Virginians*

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Agency Outreach and Accountability

Ensuring that Environmental Justice is ingrained into Virginia's policies, permits, procedures and programs requires a wholesale rethinking of how agencies operate. Ensuring that all voices are considered in a state action requires active engagement and accountability from state agencies. Virginia has historically treated public communication as a passive action. A notice in a newspaper may meet a legal obligation but in no way meets our obligation to the environment and vulnerable communities. A state action that does not include 'meaningful involvement of all people' is an unjust action. Even if an outcome is 'just' a flawed process has the potential to undermine the entire action.

No two natural resource conflicts will ever be exactly the same. There is no singular law or policy that could 'fix' environmental justice concerns. However, through a just process we can best safeguard just outcomes. Our committee has focused on those processes that guide the development, decisions, and implementation of Virginia's policies, permits, programs, and procedures.

Our recommendations focus on items that are actionable in the near term. However, in recognizing that our processes are not inclusive, we must also acknowledge that the Commonwealth has made unjust decisions in the past. The Virginia Council on Environmental Justice does not have the authority to review past decisions, merely to hear from citizens impacted by those actions. With that being said, Virginia has an obligation to review past natural resource decisions with an eye towards equity and historical impacts that persist to this day.

- **Outreach, Communications, and Partnerships**
  - TACs/ RAPs/ Workgroups

    Before most actions come before the public, the issue is often sent to a workgroup for consideration. These workgroups ostensibly represent subject matter experts and relevant stakeholders. The product of these workgroups heavily influences the final outcome and effectively sets parameters for what is possible when a decision is to be made. While technical understanding is critical for much of this work, community interests, and substantial conservation voices must also be involved at these initial steps to ensure environmental justice is built into the process rather than dealt with as an afterthought.

- **Creation of an outreach strategy**

  A common thread amongst all public testimony has been that the best method for communicating with a community is always unique. To that end, Agency outreach should also be unique and specific. Rather than prescribing a minimum standard for communications, agencies should be able to show how and why their approach was warranted.

- **Local Government**

Many decisions that lead to disproportionate impacts on vulnerable communities start at the local level. While state agencies may play a role in permitting a specific part of a project the locality holds significant sway over the final outcome. Ensuring that Environmental Justice Concerns are incorporated into local processes is essential to creating a just process. Additionally, Comprehensive plans and other road maps for development at the local level should pay careful attention to equity as they steer our communities growth. Recognizing that localities create and administer many of their own processes we looked for ways to introduce accountability through state and local financial relationships.

- **Interagency Task Force**

Budget language adopted by the 2020 General Assembly (Item 372 #1C) creates the Interagency Environmental Justice Working Group, to be comprised of 10 environmental justice coordinators representing each of the Governor's Secretaries. The Secretary of Natural Resources shall designate a chairman and vice chairman from among the membership of the Working Group.

The Working Group shall conduct an assessment of the processes and resources required of state agencies to develop agency-specific environmental justice policies. In conducting its assessment, the Working Group shall provide that agency policies at a minimum: (i) ensure environmental justice is meaningfully considered in the administration of agency regulations; (ii) consistently identify environmental justice communities and fenceline communities; (iii) identify how such communities are affected

by agencies' regulatory activities; (iv) consider the economic development and infrastructure needs of environmental justice communities and fenceline communities in agency decision-making processes; and (v) contain robust public participation plans for residents of environmental justice communities and fenceline communities potentially affected by agency actions.

Delegate Lopez's HB 1164 amended the mission statement at DEQ with the following- "*To address climate change by developing and implementing policy and regulatory approaches to reducing climate pollution and promoting climate resilience in the Commonwealth and by ensuring that climate impacts and climate resilience are taken into account across all programs and permitting processes."*

Note: Recommendations 1-11

Outdoor Access Committee Report

Charge of Committee: *Public spaces should serve everyone. Equal and equitable access to these spaces and natural areas is critical to fostering healthy communities. The Council shall provide recommendations for best practices and tools to ensure that all communities have public access to outdoor areas.*

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Health disparities in EJ communities have been well documented over the years and are further enumerated in this section of the report. It is well documented that local parks and recreation agencies create healthy, vibrant communities that play a fundamental role in enhancing the physical environments in communities. High quality facilities, attractive outdoor settings, and the multitude of services provided support healthy lifestyles for people of all abilities, ages, socio-economic backgrounds, and ethnicities.

The global COVID-19 pandemic has become increasingly obvious that many communities across the Commonwealth have been disproportionately impacted by the lack of outdoor recreation facilities in their communities further exacerbating the many health disparities we see related to COVID - 19 and in EJ communities more broadly.

Due to uneven distribution patterns, minority and low income communities have far less access to green spaces than white, affluent communities and have limited resources to maintain the green spaces they do have. The lack of funding at the local level for such amenities further compounds this issue as many local Parks and Recreation Agencies are typically first on the

chopping block in times of economic uncertainty. Grants should focus on the development of Green Infrastructure, Tree Canopy, Parks and Open space development/land acquisition, and trail development in EJ communities as well as 10 minute walkability to Parks or Open Space more broadly within each health district.

Planning for Outdoor Recreation

Building off of the current Recreation Access Model used by the Department of Conservation and Recreation (DCR), we recommend that an updated model be developed to create a Statewide Park Equity Mapper. The Park Equity Mapper should contain the following data points:

1) Census tract data for Race, Age, Education, localities without a local Parks and Recreation Agency, % below poverty line, % of population considered Obes, % of population with Diabetes, % of population with Heart Disease, % of population within a ten (10) minute walk of a local park/trail, % of population within a Thirty (30) minute drive of a Regional Park/trail, % of population within an hour drive of a State Park/Trail, Native lands and urban heat island data.
2) All local and state held lands, trails and water access points that are open to the public.
3) It is the expectation of this committee that the newly developed tool will be used to make planning decisions as it related to state and local land acquisitions, grant funding opportunities and development of conservation and open space lands for recreational access in communities where those amenities do not exist.

27 Counties out of 95 Counties and 38 Independent Cities in Virginia do not have a full time Parks and Recreation Agency and many others have so few staff that they are unable to

develop complex plans much less apply for grants. This has led to not only lack of access to recreational amenities in these communities but has also contributed to the health disparities seen in the same localities, many of which are EJ Communities. To assist communities across the Commonwealth we recommended the reestablishment of funding under State Code Section 10.1-200 that allows the Department of Conservation and Recreation (DCR) to provide technical assistance to local communities for Open Space Planning and Conservation purposes. Over the years since this Code Section was established, DCR has continually been defunded cuasusing programs under this Code Section to be mothballed. With funding for additional staff and resources, DCR could once again renew this important program with a focus on those communities without a Parks and Recreation Department while assisting other localities and Cities to focus on equitable outdoor access.

We recommend that the State update all grant manuals for State grant funding and Federal pass through grants related to land conservation and trail development to emphasize and prioritise communities across the commonwealth who lack access to outdoor amenities based off of the Park Equity Mapper tool and existing conservation value based scoring criteria. The following criteria should be evaluated when updating grant manuals:

1. Ensure diversity of members on all boards providing oversight of environmental, land conservation and open space grants and agencies.
2. Add scoring criteria for all environmental, land conservation and open space grants using EJ Screening tools and Park Equity Mapping tools to over all grant scores as well as individual grant sections where applicable.

3. Allow EJ Communities to use a wide variety of possible grant match options instead of relying heavily on cash matches. Consideration should also be made as to the size of the match needed if at all.

Virginia has two robust programs that help the Commonwealth conserve land and provide outdoor access to all citizens. The first is the Virginia Land Conservation Fund (VLCF) which is administered by the Virginia Department of Conservation and Recreation to assist Government Agencies and supporting partners in the fee simple purchase of lands with the expectation of conservation benefits and open space access for all. The second is the Land Preservation Tax Credit (LPTC) which is administered by the Virginia office of Taxation and offers private landowners the ability to use an income tax credit worth 40% of the value of the land put under Conservation Easement but does not require public access and in some cases the conservation value and benefit to all Virginians' is ambiguous. Based on the findings in the November 2012 JLARC report titled "Dedicated Funding Sources for Land Conservation in Virginia". The State relies heavily on LPTC to meet land conservation goals and uses VLCF mainly in a supporting role. While this program has had great success over the years of protecting thousands of acres of land, the unbalanced approach to land conservation benefits those who own large tracts of land and those that understand how the Land Preservation Tax Credits work.

Access for all

State Parks need to support various park operations through parking fees puts pressure on administrative officials to increase parking fees over the years to support visitor services. This has led to the current cost of parking at some of the more popular State Parks located close to

urban centers to cost upto $10 a day just to access the park. Additionally, State Parks' increasing reliance on revenue generation pushes development toward experiences that can generate enough revenue to not only support the amenity in question but to also supplement the rest of the system. This requires the development of amenities for which visitors will pay a premium fee perpetuating the investment for those in higher socio-economic groups over those in lower socio-economic groups. These amenities also tend to require greater levels of development which over time adds to the already critical deferred maintenance backlog of the system. Perpetuating a cycle of a need for increased user fees.

In recent budget bills when the State Legislature allocates funds to the Department of Conservation and Recreation for the purchase of New State Parks and Natural Area Preserves comes with stipulations as to where the agency can purchase property. These locations tend to be around Civil War Battlefields, Existing Parks or Existing Preserves. This language prevents DCR from not only meeting its mission of a State Park with an hour of all residents in the Commonwealth but also from developing facilities in communities that need them most. We recommended that all subsequent budget allocations remove this language to allow DCR flexibility to provide facilities in communities that lack Park and Open Space amenities. [1]

Outdoor Education

Environmental Justice communities are disproportionately underrepresented in the outdoor community and professions. This has led to not only a lack of diversity of those seeking careers in the field of Natural Resource Management but also in those seeking enjoyment of the outdoors.

[1] See recommendation eighteen.

Note: Recommendations 12-19

Climate Change & Resilience Committee Report

Mission/Vision: *Climate change is one of the biggest threats of our time, and its impacts can disproportionately affect minority, low-income and historically-underserved communities. Executive Order Twenty-Four (EO-24) was issued to increase Virginia's resilience to recurrent flooding, sea level rise, and other natural hazards. The Council shall consider EO-24 as it provides advice on this issue and include suggestions for resilience investments that would help reduce impacts on vulnerable communities. The Council may also recommend ways to increase equitable renewable energy development, clean energy technology, and energy efficiency programs to help ensure these climate solutions are available to all.*

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Climate change is one of the most pressing threats of our time, and its impacts will disproportionately affect minority, low-income and historically-underserved communities making it difficult for them to bounce back. Recent events such as monster hurricanes and earthquakes in Puerto Rico and the COVID 19 pandemic have exposed weaknesses in the federal government's willingness and or ability to effectively respond to crisis and to rebuild communities equitably. The morbidity from COVID 19 among communities who have been overburdened and exposed to environmental hazards and pollutants proves the urgency and importance of environmental justice. In light of these realities it is even more important for Virginia's Governor and its agencies tasked to develop emergency preparedness and disaster recovery to consider resilience for environmental justice and frontline communities as the central concern of their work. While this may be counter to conventional approaches or recent recovery

and crisis management where the government has prioritized assistance to corporations and the financial sectors it is actually an advantage for the health of the commonwealth to prioritize the most vulnerable. Helping the most vulnerable communities recover adds value and stability for economic recovery overall and has long term health and social impacts which will benefit all of Virginia's citizens.

Executive Order Twenty-Four (EO-24) was issued to increase Virginia's resilience to recurrent flooding, sea level rise, and other natural hazards. The Council has been tasked to consider EO-24 as it provides advice on this issue and include suggestions for resilience investments that would help reduce impacts on vulnerable communities. Equitable just recovery after climate events should be prioritized as well as the inclusion of community concerns and needs. Low-income communities impacted by severe weather events and/or increasing climate impacts will need sustained support and assistance to fully recover and state agencies have the opportunity to help them improve their quality of life and address systemic economic and social justice during recovery. The following link outlines principles for recovery and resiliency which prioritizes a bottom-up community based approach to recovery.

https://docs.google.com/document/d/1YHl3XrJ1dNg3NO5W6qOKk_xAWY4KX_uV7LFGw8NkJbg/edit?pli=1

Virginia Agriculture

Current Virginia agricultural practices and policies can be improved to promote environmental justice, climate resiliency, and sustainable agriculture. Virginia state agencies can lead the way by addressing historic harms and ending discriminatory practices against socially disadvantaged farmers. This document offers multiple policy strategies to increase land access, provide training and technical assistance in sustainable agriculture, and increase farm

administration for farmers from traditionally marginalized and exploited groups including: Black, Hispanic, Indigenous, Recent Immigrants, and Women. If enacted, these strategies will improve climate resiliency and ecological health, and cultivate racial justice in the agriculture sector of Virginia.[2]

Background and Justification

"We believe that sustainable small-scale farming and local food consumption will reverse the actual devastation and support millions of farming families. Agriculture can also contribute to the cooldown of the earth by using farm practices that store CO2 and considerably reduce the use of energy on farms."

- La Via Campesina, "Small-Scale Sustainable Farmers are Cooling Down the Earth"

Inequitable Land Ownership

Through broken treaties, stolen land and displacement of indigenous nations, and enslaved African people as commodity and free labor, agriculture in the United States became a wealth-producing industry.[3] Over one hundred years ago in 1910, one in seven farmers nationally were African-American and they held titles to approximately 16-19 million acres of farmland. Between 1910-2010, 98% of Black farmers were dispossessed through discriminatory practices and various federal farm programs. Today, 98% of private rural land is owned by white people, while less than 1% of agricultural land is Black-owned.[4] In Virginia, as of 2017, there are

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[2] https://rodaleinstitute.org/why-organic/issues-and-priorities/climate-change/

[3] Edward E. Baptist, The Half Never Been Told, Basic Books, 2014.

[4] USDA National Agriculture Statistics Service. Selected Principal Operator Characteristics by Race, 2012. https://www.nass.usda.gov/Publications/AgCensus/2012/Full_Report/Volume_1,_Chapter_1_US/st99_1_062_062.pdf

USDA Economic Research Service. Farmland Values, Land Ownership, and Returns to Farmland, 2000-2016. Economic Research Report No.
(ERR-245), February 2018. https://www.ers.usda.gov/publications/pub-details/?pubid=87523

43,225 total farm producers. 41,924 are white, while only 1,335 are black, 704 are Hispanic, and 376 are American Indian.[5]

Farmers from socially disadvantaged groups including African-American, Hispanic, Native American, women, and immigrants, face great barriers to farming access, including structural socio-economic inequalities and a history of discrimination in credit markets, and federal farm programs, and real estate.[6] The financial system favors large-scale farms that specialize in a few crops, most of which are not directly for human consumption. Many of these excluded farmers who possess valuable agro-ecological knowledge - inherited from Native American traditions, Central and South American farming traditions, and legacies of black sustainable agriculture - are at risk of being lost without opportunities to practice it and pass it to future generations.[7]

Advantages of Sustainable Farming

According to the EPA , industrial agriculture contributes an estimated 9.9% of US greenhouse gas emissions[8] through fuel for machinery, food processing, transporting, and by the manufacturing of synthetic fertilizers.[9] However estimates from the United Nations Food and Agriculture, WorldWatch Institute, and Stanford University studies show greenhouse gas emissions from agriculture to be above 30% due to lost carbon in the soil, methane release from livestock, unaccounted farm inputs, and lost sequestration from deforestation.[10] Regenerative

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[5] 2017 Census of Agriculture, Race/ethnicity/Gender profile

[6] Megan Horst and Amy Marion, "Racial, ethnic and gender inequalities in farmland ownership and farming in the US." Agriculture and Human Values 36(1), pp. 1-16, March 2019. https://link.springer.com/article/10.1007/s10460-018-9883-3

[7] Laura-Anne Minkoff-Zern, "Pushing the boundaries of indigeneity and agricultural knowledge: Oaxacan immigrant gardening in California." Agriculture and Human Values, 29(3), pp.381-392, September 2012. https://link.springer.com/article/10.1007/s10460-011-9348-4

[8] EPA Inventory of Greenhouse Gas Emissions and Sinks, 2018 https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

[9] https://www.ecoliteracy.org/article/industrial-agriculture-agroecology-and-climate-change

[10] Jeff McMahon, "Why Agricultur's Greenhouse Gas Emissions are Almost Always Underestimated", Forbes, Dec. 2, 2019.

farming methods on average use 45 percent less energy and release 40 percent fewer carbon emissions than industrial agriculture.[11] Industrial agriculture promotes excessive tilling of the soil which releases sequestered carbon into the atmosphere, whereas sustainable farming prioritizes minimized tilling methods.[12] Many well known sustainable agricultural practices can reduce emissions including perennial cropping, crop rotation, cover crops, No-till and reduced till, management-intensive grazing, agroforestry and silvopasture, dry manure management, organic fertilizer use, and planting riparian buffers and wind breaks.These are practices are well known and have been proven and successfully demonstrated with virtually all crops in most regions of the country at most scales. They have been found to be both productive at reducing greenhouse gas emissions and increasing soil carbon and increasing productivity and former profitability.[13] In addition, small, sustainable farms are generally more connected to the local community and more labor-intensive these attributes result in reduced poverty and social exclusion in the community.[14]

Barriers to Culturally Diverse Farmers Gaining Access to Land

Securing access to affordable, high-quality farmland is the greatest barrier to new farmers and disadvantaged farmers entry and success. American farmers are struggling to hold onto their livelihoods. At this time, over half of farmers live with negative on-farm income.[15]

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[11] https://rodaleinstitute.org/why-organic/issues-and-priorities/climate-change/

[12] https://rodaleinstitute.org/why-organic/issues-and-priorities/climate-change/

[13] Jeff McMahon, "Why Agricultur's Greenhouse Gas Emissions are Almost Always Underestimated", Forbes, Dec. 2, 2019.

[14] https://www.ecoliteracy.org/article/industrial-agriculture-agroecology-and-climate-change

[15] USDA Economic Research Service, Highlights from the August 2019 Farm Income Forecast. August 2019.https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/highlights-from-the-farm-income-forecast/

New farmers face numerous hurdles in gaining access to land due to three primary factors.[16]

1. Nationwide loss of farmland to development and large/institutional investment funds.
2. The high cost of land combined with the low purchasing power of new farmers.
3. Historic race-and gender-based discrimination, both legal and extralegal practices limiting land and credit access. Black farmers experience discrimination in access to credit, seeds, and other assistance, and face foreclosure at six times the rate of their White counterparts.[17] [18]

Additional barriers make utilizing sustainable practices economically unfeasible for beginning farmers. Significant capital and training are required for new sustainable farmers to remain solvent during the initial startup phase. In addition, there is a multi-year process of land restoration, soil remediation, and the establishment of optimally productive agroecosystems that eventually replace the need for external inputs.

Inspirations from a Patchwork of Innovation

Mitigating climate change in the agriculture sector requires three moves: *encouraging* ownership by new farmers, *practicing* regenerative agriculture, and *repairing* historical disparities to land access and tenure. Innovative programs such as those found in the Green New Deal, can facilitate new farmers' access to farmland through coordinated efforts at the federal, state, and local levels.[19]

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[16] Calo and Petersen-Rockney, "What Beginning Farmers Need Most in the Next Farm Bill:Land", Policy Brief, Berkeley Food Institute, Aug. 2018.
[17] USDA Commission on Small Farms, "A Time to Act," Report, January 1998. https://archive.org/details/timetoact1545usda
[18] Meleiza Figueroa and Leah Penniman,Land Access for Beginning and Disadvantaged Farmers, Green New Deal Policy Series:Food and Agriculture, pg.6, March 2020.
[19] Meleiza Figueroa and Leah Penniman,Land Access for Beginning and Disadvantaged Farmers, Green New Deal Policy Series:Food and Agriculture, pg.7, March 2020.

Several NGOs and local governments have already been experimenting with creative solutions to address these barriers. These solutions include farmland protection, conservation easements, and various forms of long-term land leases and land sharing agreements, as well as creating equitable ownership opportunities for new farmers from historically disadvantaged communities.[20]

There has also been a resurgence of farmland cooperatives, using a number of institutional means, such as community land trusts, to secure and protect tenure rights for small farmers.[21] Local and national organizations working on means for land acquisition include: Black Family Land Trust, Agrarian Trust, California Farmer Justice Collaborative, and the National Young Farmers Coalition. The first land trust in the US was established by black farmers in Georgia called New Communities Inc.https://www.newcommunitiesinc.com/

These innovations are currently implemented in piecemeal, experimental settings. Statewide innovative programs can provide the much-needed resources to scale these efforts into programs that would benefit the citizens of the Commonwealth of Virginia, our nation, and our planet.[22]

Note: Recommendations 20-22

[20] Annelise Jolley, "The Co-op Farming Model Might Help Save America's Small Farms." Civil Eats blog, October 3, 2018. https://civileats.com/2018/10/03/co-op-farming-models-might-help-save-americas-small-farms/

[21] Agroecology Research Action Collective, "The Need for a Food and Agriculture Platform in the Green New Deal." https://agroecologyre-searchaction.org/green-new-deal/

[22] Meleiza Figueroa and Leah Penniman,Land Access for Beginning and Disadvantaged Farmers, Green New Deal Policy Series:Food and Agriculture, pg.7, March 2020.

Public Health Committee Report

Mission/Vision: *To explore, provide comments, identify resources and make recommendations on health and public health issues related to EJ issues the Council works on, and to serve as a resource on health and public health for other committees.*

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Asthma in Virginia

The distribution of asthma in Virginia varies according to race, income, and education and probably by region of the state although data on regional variation in asthma rates was not available at the time of this report. More African American Virginia residents (16.5%) had asthma compared with Caucasian Virginia residents (13.5%). Additionally, adults in the lowest income bracket ($15,000 – 24,000 annual income) had the highest lifetime asthma prevalence 14.8%. Virginia residents who did not graduate from high school had a higher lifetime asthma prevalence (15.8%) compared with 12.9% for Virginia residents who graduated from high school. This data was reported to CDC for the year 2018. Data from the Virginia Department of Health website on asthma in Virginia was unavailable at the time of this report.

Natural Disasters

Planning is among prime considerations for environmental justice. Planning authorities should develop advance plans for communicating continually with a broad range of affected citizens before, during, and after natural disasters. Having adequate proactive strategies can

minimize recovery efforts, for example. Once a disaster has occurred, having strategic plans in place to manage during recovery is necessary. Regions in the Commonwealth of Virginia need not suffer such as New Orleans, Louisiana and surrounding areas did during Hurricane Katrina in 2005 and beyond. In fact, planning is a factor in ensuring that vulnerable population members receive resources they need to rebuild or effect repairs as well as regarding emergency evacuations. Conceivably, as Hurricane Katrina data indicates, certain communities, by demographic, are at risk for disproportionate loss of life, e.g., African Americans' deaths in New Orleans.

Lead

Older residences built before 1978 are more likely to contain lead hazards in the form of chipping and peeling paint. Lead paint was prohibited for use in residential paint in 1978, but older housing, especially pre-1950 housing, is still at risk for residents, especially for children. This paint can deteriorate resulting in lead exposure in the dust (HIP, 2017). Building components containing lead can enter the waste stream. Lead can be inhaled, or ingested. Small amounts of lead can poison a child or an adult. In small children, the mechanism of exposure is hand to mouth. Lead dust adheres to the hand and the normal hand to mouth activity results in ingestion of small particles of lead leading to elevated blood lead levels. Lead can also be found in soil, as a legacy of the use of leaded gasoline. Lead in soil can persist for years in soil, and so these exposures persist in areas that are near highways where particles from tailpipe emissions settled when leaded gasoline was still being used. Lead pipes in the water distribution system and lead in fixtures inside buildings is an additional source of exposure.

Children are exposed to lead through hand to mouth contact when they touch Lead disrupts the normal neurological developmental process in children, resulting in loss of IQ, learning and attention deficits, changes in information processing and on a population basis, lowered rates of graduation from school and higher rates of incarceration. (Chen, 2011, Health Impact Project, 2017).

In Virginia there are cities and counties where the number of children with elevated blood lead levels are significantly higher. Examples include counties of Accomack, Chesterfield, Chesapeake, Fairfax, Henrico, Loudoun and Prince William and the cities of Alexandria, Charlottesville, Chesapeake, Newport News, Norfolk, Richmond and Roanoke.

Nutrition

It is important to note that food insecurity in environmental justice communities creates public health risk as it relates to controlling outbreaks of infectious disease in those communities. In 2017, 11.8% of U.S. households experienced food insecurity at some point during the year – reducing access to adequate food for an active, healthy lifestyle. In 2017, rates of food insecurity were higher than the national average for Black and Hispanic households and higher in rural versus urban areas. Food prices are higher and food quality is poorer in areas with higher rates of poverty. The average U.S. household in 2017 spent about 14% of its income on food; low-income families spent more than 30%. Hispanic and Black children have higher obesity rates than White children. In 2015, about 54.4 million people (17.7% of total U.S. population) had low access to a supermarket due to limited transportation and uneven distribution of supermarkets. Households in EJ communities are on average 1.1 miles farther away from a

supermarket. Having access to quality and fresh food plays a role in improving public health in EJ communities.

The food we eat gives our bodies the "information" and materials it needs to function properly and fight off infectious disease. If we don't get the right information, our metabolic processes suffer and our health declines. There are six micronutrients, vitamins and minerals, that help with healthy development, immune system development, disease prevention, and wellbeing. The two most important micronutrients are Vitamin D and ZINC, especially during COVID which has shown to have a disproportionate impact on EJ communities. Micronutrients are only required in small amounts, they are not produced in the body and must be derived from the diet. It is important that EJ communities are educated on the importance of nutrition not only to protect children in the community but the entire community as a whole. This is what makes nutrition education key to help people become health conscious and aware of health developments. These six micronutrients are as follows:

- Iron
- Vitamin A
- Vitamin D
- Iodine
- Folate
- Zinc

Below highlights the importance of each micronutrient and the role played with wellbeing:

Iron

- Iron is critical for motor and cognitive development. Children and pregnant women are especially vulnerable to the consequences of iron deficiency.

- Iron is a leading cause of anemia which is defined as low hemoglobin concentration. Anemia affects 43% of children younger than 5 years of age and 38% of pregnant women globally.
- Anemia during pregnancy increases the risk of death for the mother and low birth weight for the infant. Worldwide, maternal and neonatal deaths total between 2.5 million and 3.4 million each year.
- Fortifying flour with iron and folic acid is globally recognized as an effective, low-cost intervention

Vitamin A

- Vitamin A supports healthy eyesight and immune system functions. Children with vitamin A deficiency face an increased risk of blindness and death from infections such as measles and diarrhea.
- Globally, vitamin A deficiency affects an estimated 190 million preschool-age children.
- Providing vitamin A supplements to children ages 6-59 months is highly effective in reducing deaths from all causes where vitamin A deficiency is a public health concern.

Vitamin D

- Vitamin D builds healthy bones. Vitamin D deficiency causes bone diseases, including rickets in children and osteomalacia in adults.
- Vitamin is required for muscle and nerve functions.
- *Vitamin D helps the immune system resist bacteria and viruses.*

Iodine

- Iodine is required during pregnancy and infancy for the infant's healthy growth and cognitive development.
- Globally an estimated 1.8 billion people have insufficient iodine intake
- Iodine content in most foods and beverages is low.
- Fortifying salt with iodine is a successful intervention – about 86% of households worldwide consume iodized salt.
- The amount of iodine added to salt can be adjusted so that people maintain adequate iodine intake even if they consume less salt.

Folate

- Folate (vitamin B9) is essential in the earliest days of fetal growth for healthy development of the brain and spine.
- Ensuring sufficient levels of folate in women prior to conception can reduce neural tube defects (such as spina bifida and anencephaly).
- Folic acid is another form of vitamin B9. Providing folic acid supplements to women 15-49 years and fortifying foods such as wheat flour with folic acid reduces the incidence of neural tube defects and neonatal deaths.

Zinc

- *Zinc promotes immune functions and helps people resist infectious diseases including diarrhea, pneumonia and malaria[14]. Zinc is also needed for healthy pregnancies.*

- Globally, 17.3% of the population is at risk for zinc deficiency due to dietary inadequacy; up to 30% of people are at risk in some regions of the world.
- Providing zinc supplements reduces the incidence of premature birth, decreases childhood diarrhea and *respiratory infections,* lowers the number of deaths from all causes, and increases growth and weight gain among infants and young children.

Note: Recommendations 23-31

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Clean Energy Transition & Transportation Committee Report

Charge of Committee: *Many communities impacted by reduced demand for thermal coal are in rural areas. A just transition is crucial, and sustainable economic development is increasingly important. The Council shall research Virginia's regions that are transitioning away from coal and provide recommendations to support those communities.*

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Clean Energy Transition

Mission: To make recommendations to the council on a clean energy transition policy in SW VA and the state in general.

Innovative state and local actions for a clean energy transition will be critical if we are to transition to a sustainable economy with much less racial and economic inequality and greater public control. A recent study by the Virginia Poverty Law Center called the Affordable Clean Energy Project, found that "on average Virginia households experience an already higher than average electricity burden of 3.1% compared to the national average of 2.9%. Low-income households spend an average of 8.8% of their income on electricity. Virginia's higher than average electricity burden is unaffordable for over 75% of Virginians. Energy Poverty, a term for households who have to choose between paying energy bills or buying food at least one time per year suffer from Energy Poverty. Statewide, some 60% of Virginians experience Energy Poverty each year.

Increasing increasing energy efficiency and solar access for low-income households is an equity issue because it removes barriers to participation for populations who have not benefited much from energy efficiency and renewable energy but have often borne the brunt of fossil fuel extraction and pollution.

Energy Efficiency:

Almost one-third of Americans face energy insecurity, and the shares are much higher for people of color and low-income people. At the same time, the very people who cannot afford the benefits of our energy system are paying a disproportionate share of its costs, as evidenced by their higher exposure to pollution and higher rates of pollution-related illnesses such as asthma. Energy efficiency addresses these inequalities at both ends, by making energy bills more affordable for vulnerable people, while also reducing the need for energy production (and therefore, reducing the associated pollution).

The American Council on an Energy Efficient Economy estimates that 35% of the energy cost burden experienced by low-income households could be alleviated if low-income housing were brought up to efficiency levels of the average US home. The benefits of energy efficiency include; reduced vulnerability to energy price fluctuations, money saved for other needs, improved comfort, indoor air quality, health and well-being, and reduced greenhouse gases.

Energy efficiency is also an important driver of job creation. With the right policy tools, people from marginalized communities facing the double burdens of energy insecurity and energy related pollution can gain access to energy efficiency careers. This is another way in which energy efficiency can help address the inequalities in our energy system.

Renewable Energy:

Much of the growth in residential solar energy in recent decades has largely benefited white, middle class families. A 2015 study estimates that a typical set of residential solar panels would meet more than half of an average low-income household's electricity needs. Low-income households are disproportionately African-American and Latino, and hence advancing income- and race-conscious policies for renewables will also advance racial justice.

Effective renewables programs also have the potential for significant creation of good jobs. Solar energy accounted for 43% of U.S. employment in electric power generation in 2015, even though it represented only 2.2% of generation capacity. Similarly, wind energy represented 11.8% of power generation jobs but only 6.8% of generating capacity. These figures suggest that solar and wind energy growth through expanded Renewable Portfolio Standards and increased low-income solar access would create many more jobs than a business-as-usual energy model. Renewable energy jobs are also comparable in wages to fossil fuel jobs. A typical wind turbine technician, for example, earns $25.50 per hour, significantly more than several categories of fossil fuel occupations.

Another benefit of these programs is that they would reduce our economy's dependence on centralized power generation and distribution by large corporate utilities. The total U.S. electricity market was worth $391 billion in 2015. By giving families and small businesses a stake in an expanded renewable energy market, these policies would keep more of this money in communities.

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https://grist.org/article/energy-efficiency-is-leaving-low-income-americans-behind/

Sustainable and Healthy Transportation

Transportation infrastructure comes in many forms and impacts our lives in many ways. Highways, roads, bridges, bikeways, sidewalks, and public transit each offer distinct benefits and trade-offs. Transportation is the source of 29% of the greenhouse gas emissions in the United States, the largest share of emission in the country, and 46% of Virginia's total greenhouse gas emissions. Transportation also sits squarely at the intersection of climate change, health, and environmental justice. Communities of color and vulnerable communities are impacted early, often, and deeply by intensifying weather events, have fewer financial resources to adapt, and are already underserved by safe, effective, and affordable transit options. These communities can be more vulnerable to health impacts from transportation pollution, have less access to services that increase well being and health, and may lack access to cleaner public transportation and walking or biking routes.

Transportation as Access

Access to healthy food, places for physical activity, and health care has a significant impact on individuals' health and well-being. Some form of transportation – whether public or private– must generally be used to access these goods and services. The need for adequate transportation becomes greater when these resources are not readily available within a community.

- Individuals are less likely to access needed services when they face transportation difficulties.
- Individuals who depend on public transportation with lengthy transit routes, multiple transfers, inadequate or irregular service, or the inability to pay for transit are at an increased risk of foregoing needed services.
- Public transportation that is convenient, fast, and easy to navigate is associated with increased access to health care services and healthy food.

Transportation for Physical Activity

Physical activity is one of the most important behaviors that drives health and well-being. Regular physical activity is associated with decreased risk of type 2 diabetes, some cancers, cardiovascular disease, and premature mortality. Transportation and infrastructure systems can impact the amount of time and the types of opportunities people have to engage in physical activity.

- The amount of time an individual spends in a car is associated with obesity. Every 60 minutes spent in a car each day increases a person's odds of being obese by 6%. On the other hand, each mile walked per day decreases the odds of obesity by 7.7%.
- Commute distances of 15 miles or more are associated with increased odds of obesity and decreased odds of meeting physical activity recommendations.
- Long commutes not only impact physical health but are also a source of stress. More time spent in the car means less time for family and friends or physical activity.
- People living in more walkable communities are more likely to use physically active modes of transportation (e.g. walking, biking), have a lower body mass index (BMI), drive less, and produce less air pollution than people who live in less walkable communities. Characteristics of walkable neighborhoods include connected streets with direct routes to places, high residential density, pedestrian-oriented retail, homes near commercial businesses and institutional destinations, and mixed land use.

Transportation and Pollution

Over the last century, air pollution has increased as the number of vehicles on the road has climbed – even with improvements in emissions standards. There is considerable research that connects pollution with a number of adverse health outcomes.

- Air pollution is associated with respiratory diseases such as asthma and lung disease. Populations at greater risk include children, older adults with pre existing respiratory diseases, people who work and exercise outdoors, people who live in close proximity to highways and interstates, and individuals without access to needed health care.
- Neighborhoods that are 0.2 to 0.3 miles from a highway are most affected by air pollution. Living next to a major road is associated with increased risk of asthma, cardiovascular disease, adverse reproductive outcomes, and mortality.
- Minorities and individuals with lower socioeconomic status are more likely to live within 150 meters (0.09 miles) major roads and experience traffic related air pollution.

Note: Recommendations 32-33

References:

https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions
https://350pdx.org/campaigns/transportation-justice/
hhttps://www.sycamoreinstitutetn.org/transportation-impacts-public-health/
ttps://meetingoftheminds.org/transit-and-climate-adaptation-transit-and-equity-29117

Recommendations

1. **We recommend the development of membership parameters for all Technical Advisory Committees, Regulatory Advisory Panels, and Ad-Hoc workgroups equitable composition of stakeholders. Criteria to include EJ community representation, impacted community representatives, Conservation community, and a cap on the number on vested stakeholders.**
2. **We recommend that workgroups should be held in the communities impacted whenever possible.**
3. **We recommend agencies develop a written outreach plan (specific to the capabilities of the community--taking into account accessibility, communication channels, internet access, and literacy,) to be included in documentation initiating actions open to public comment. This would provide agencies with protections and the public with a mechanism for accountability.**
4. **We recommend that there is no requirement to have previously submitted comments in order to speak before a board.**
5. **We recommend legislation that specifies that any program or activity that is funded directly by the state, or receiving financial assistance from the state will be held to the commonwealth's definition of Environmental Justice.**
6. **We recommend legislation requiring that comprehensive plans include environmental justice goals, policies, and objectives. Comprehensive plans should identify disadvantaged communities to include mechanisms for communities to**

engage in the process and communities that have been overburdened by EJ issues. Legislation should also require the environmental justice goals, policies, and objectives be integrated into all comprehensive plan subjects. Comprehensive plans should identify policies to reduce the unique or compounded health risks in environmental communities, and to identify policies to promote civil engagement in the public decision making process.

7. **We recommend legislation adding climate change to the list of required considerations in the Comprehensive plan process.**
8. **We recommend the Environmental Justice Council created in HB1042 and SB883 select a member to serve as ombudsmen to the interagency task force who reports back to the full council.**
9. **We recommend the interagency task force meetings open to the public, draft report shared with EJ Council for an opportunity for the council to offer comments.**
10. **We recommend adding the Office of Diversity, Equity, and Inclusion to the Interagency Task Force.**
11. **We recommend DEQ should initiate a climate change audit of permits, procedures, programs, and processes. While some mechanisms cannot be altered till specific dates the agency has wide latitude to make revisions in other areas. Including Climate Change as part of the mission statement is step one but ensuring that all agency actions are reflective of the changing conditions is where the work becomes protective of environmental justice communities and the Commonwealth as a whole.**

12. **We recommend the Virginia Department of Conservation and Recreation along with the Virginia Department of Health (VDH) develop an outdoor infrastructure grant program to be administered by local Parks and Recreation Districts.**
13. **We recommend that an updated model be developed to create a Statewide Park Equity Mapper.**
14. **We recommended the reestablishment of funding under State Code Section 10.1-200.**
15. **We recommend that the State update all grant manuals for State grant funding and Federal pass through grants.**
16. **We recommend that the Secretary of Natural Resources conduct an audit of the VLCF program and the Land Preservation Tax Credit program to encompass the following:**
    A. **Conduct a gap analysis of all existing VLCF projects. This review should be used to determine areas within the Commonwealth where funds have previously not been deployed and where greater efforts need to be made to inform both the public and localities of the program. Funding should be specifically allocated for the development of conservation and open space projects identified in EJ communities.**
    B. **Evaluate the existing structure of the Land Preservation Tax Credit to focus on equity. This can be achieved by rebalancing budget allocations to place less emphasis on private land conservation and more priority on acquisitions of priority lands and lands available for public recreation though the VLCF**

program or by ensuring public benefits are provided for as laid out in Conserve Virginia on lands participating in the LPTC program.

17. **We recommend the development of a sustainable funding source should be sought to allow all Virginians free access to all State Parks.**
18. **We recommended that all subsequent budget allocations remove this language to allow DCR flexibility to provide facilities in communities that lack Park and Open Space amenities. (see footnote 1)**
19. **We recommend the development of a State administered grant to increase access to outdoor education and recreation opportunities for EJ communities to facilitate the development of future conservation leaders.**

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20. **<u>Land Access</u> - fostering a new generation of culturally diverse farmers through equitable and inclusive practices.**
21. **<u>Regenerative and Sustainable Agriculture</u> - providing training and technical assistance to support culturally diverse farmers.**
22. **<u>Farmer Administration</u> - promoting racial justice in farm ownership, operation, and income.**

Note: Further justification and background information for the above recommendations can be found in Appendix C.

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23. We recommend that asthma data (especially for children) be examined by region of the state and reported to Virginia residents on the Department of Health website.

24. We recommend that that data be analyzed to look at correlations to residence in an area where higher levels of particulate matter and ozone have been documented relative to other areas of the state.

25. We recommend development of strategic communication plans for select populations such as those with a greater probability for natural disasters due to major storms, climate change or sea level rise, e.g., flooding prone regions. Efforts need to include establishing construction standards and providing recommendations for home, vehicle and personal property insurance minimums.

26. We recommend that in planning, agencies and stakeholders should afford all voices the opportunity to be heard adequately.Steps need to be taken for communities such as Buckingham county where there was much controversy over the Compressor station that ultimately was approved last year, an example where minorities protested based on air quality & related concerns yet business considerations prevailed initially. The decision to grant the project permit was overturned, a victory for environmental justice. As projects such as that are considered in the future, it is conceivable that public voices are ignored again and the probability for disaster arises. Needless to say, big corporations hold power and put potentially vulnerable communities at risk.

27. **We recommend exploring the variation in EBLs observed to determine if residents of these cities and counties are continuing to be exposed to lead in household dust, soil or contaminated water.**
28. **We recommend reporting on blood lead levels to national datasets such as those compiled by the Centers for Disease Control and Prevention, so that we can more effectively compare Virginia to other states.**
29. **We recommend that the Virginia Department of Health and the Virginia Department of Social Services should collaborate in making grants available in EJ communities that are experiencing food insecurity. The grant investments should focus on the community growing their own food and/or working with local farmers to acquire food that is subsidized by the grants.**
30. **We recommend that the Virginia Department of Education should incorporate educational (in person or online) tools that educate all children, especially those living in EJ communities, about the important role nutrition plays on health. There should be a curriculum developed on this subject matter that is taught in the classroom.**
31. **We recommend that the Virginia Department of Parks and Conservation should incorporate a "train the trainer" curriculum program for adults living in EJ communities. This will promote an on-going learning process on how food impacts public health. Educating these communities about good eating habits can either stop or slow down diseases caused by processed food that plagued EJ communities.**

Doing this may lead to better public health and save on health insurance related costs for the state.

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32. **We recommend supporting the Virginia Transportation and Climate Initiative (TCI). The TCI will benefit vulnerable communities throughout the state with increased access and health, reduced pollution, and important reductions in greenhouse gas emissions.**
33. **We recommend that the council continue examining transportation systems and recommendations to reduce air pollution and other transportation-related environmental concerns and to provide equitable access to clean and efficient transportation choices. This research includes:**
    - Transit-oriented development, including affordable housing, with multimodal green and complete streets.
    - Provide equitable access to transportation options, including safe, connected pedestrian, bicycle, and transit routes.
    - Anticipate, plan, and provide infrastructure to support electric vehicles and new transportation methods and technologies.
    - Apply technologies and design strategies to achieve net-zero
    - Promote regional transportation planning and development.
    - Develop relocation, retreat, and/or evacuation plans.

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Public Comment

The VCEJ held a public comment period at the conclusion of every public meeting.

The following public comments are from previous meeting notes, correspondence (emails and letters) to the Secretary of Natural Resources Office, concerning the environmental justice council.

May 28 Correspondence

Virginia Environmental Justice Council Meeting: Public Comment

My name is Kevin Halligan and I am a resident of Powhatan County Virginia. I would like to encourage the Council to highlight the need for updated Solid Waste Management policy and legislation in the Council's report to the Governor.

1. Need for Additional Capacity: The determination of Need is presently included in DEQ permitting regulations but is unclear as to when and how such determination must be made. Presently, the project proponent or company applying for a Solid Waste Management permit is required to demonstrate that there is a need for additional landfill capacity. It is my understanding, that DEQ must review that information and either concur or reject the determination of need. Unfortunately, it appears that determination of Need is not considered until the final steps of the Part A Solid Waste Management Application. It makes sense to move the Determination of Need to the beginning of the process rather than at the end.

2. Virginia is a leading importer of out-of-state trash and has more mega landfills than most midwestern and east coast states. Virginia's policies and regulations seem to make it easy for private solid waste management companies to locate operations in Virginia thus impacting vulnerable communities.

3. We need to enact legislation that will allow Virginia to manage its' waste in a socially responsible and environmentally sustainable manner. We must commit to waste diversion programs and policies and focus on the two prime methods found in the EPA Waste Management Hierarchy: Source Reduction/Reuse and Recycling/Composting. Specifics such as Extended Producer Responsibility, Ban Organics from Landfills, Developing Composting Centers, and Pay-to -Throw methods of Disposal.

4. Senator Hashmi's office is considering SWM legislation. Tom Benevento and an Dr. Stoltzfus from JMU have expressed willingness to play a role in the development of legislation. I have sent letters to 25 SWM Planning Units requesting their SWMU Plans and have been encouraged by their responses regarding available disposal capacity. I plan to send letters to the remaining Planning Units in the near future.

July 10th Correspondence

1. Declare racism as a public health crisis.

2. NO utility shut offs/restoration of utilities during pandemic and/or other public health or environmental crisis events.

3. Have representatives from all state agency's ej offices report to EJ council the progress of them incorporating EJ into their daily practices.

4. Implement EJ Act into practice in all state agencies ensuring that they not only know but understand the definition of "participation" and "meaningful" and not just give lip service.

5. Make the application process for service on boards and councils more inclusive and welcoming to impacted community members.

6. Community members are still not being heard - how is it that we have a ratio of, say, 150 to 3 and the votes of 3 get the nod? This is how it is repeatedly done at the Air and Water boards. We leave feeling our voices are not being heard, we write but our words are not being read, we are not taken seriously. We are crying out but our cries fall on deaf ears.

7. Community solar - incentives

8. Lead and Asthma rates

9. Pandemic and the disproportionate effects on EJ communities. These communities have always been disproportionately affected long before covid 19.

10. How about a comparative analysis and study of environmental racism in current and recent permits, and the implications for impacted communities?

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APPENDIX A: VIRGINIA TRIBAL RECOMMENDATIONS

1) Re-establish Virginia Council on Indians
    a) *Provide background info/recommend new charge*
    b) Create Indigenous Environmental Quality Task Force
        i) Standing subcommittee

2) Proactive co-management of resources
    a) Regional DEQ representative to develop relationships with tribal communities
    b) Meet quarterly to discuss local issues
    c) Field visits to understand significance of sites (where and when appropriate)

3) Prior to comment periods, implement processes to dive deeply into potential issues with projects.
    a) *Free, Prior and Informed Consent (FPIC) is a specific right that pertains to indigenous peoples and is recognised in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). It allows them to give or withhold consent to a project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage. Furthermore, FPIC enables them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated. This is also embedded within the universal right to self-determination.*
    b) Current comment period windows do not provide tribal governments adequate time to digest the information, inform their citizens, and come to a consensus about which direction the tribal body wishes to take.
    c) Work with companies, infrastructure, and tribal stakeholders to understand the "lay of the land" and what hotspots might exist

4) EJ Screens don't cover all our history. Census information..Work with native people and state universities to conduct history and treaties (with the Crown and the early colonial government) as well as race laws following the Civil War, Jim Crow and Walter Plecker Eras with land use and the destruction of culture and identity

5) Provide equitable treatment between federal and state tribes. Each has a different set of internal priorities and legal authorities. Yet, regardless of **what** status tribes have and **when** they gained that status, each tribe needs to be treated with the same amount of care and attention. There are a myriad of reasons why and how tribes achieved their status. One is not above the other.

Build Relationships with Tribal Communities to

Fill Data Gaps in Environmental Justice Screening Tools

Effective screening tools are essential to the inclusion of environmental justice considerations in decision-making. Geographic information systems (GIS) are a preferred screening tool because they can tell complex stories in a simple visual format and facilitate communication. Currently, the primary GIS screening tools used by state agencies do not integrate Virginia tribal community data with environmental data. This puts tribal communities at a disadvantage (given that other types of demographic data are integrated) and increases the risk that historically, culturally, and spiritually significant sites will lack representation in state decision-making processes.

The lack of Virginia tribal community data in GIS stems from several interpretive, bureaucratic, and technological challenges dating back to the 17th century. Tribal communities are not static and have never fit into city, county, or state boundaries established by the colonial government. Settlements documented in the early 1600s represent a foreign interpretation of communities before colonial displacement. The stories of migration, tribally significant sites across time, and present community distribution are held within each tribe and can only be understood through relationship building.

Here is an overview of environmental justice screening tools that can benefit from the inclusion of comprehensive Virginia tribal community data:

Virginia Cultural Resources Information System (VCRIS)

- *VCRIS is "the Department of Historic Resources' statewide electronic cultural resources GIS and database. It provides interactive views of information in the DHR Archives related to properties, historic districts, and archaeological sites, and presents evaluative information about the historic significance of resources."*
    - *Many historically significant Virginia Indian sites are missing in VCRIS. The historic register listing process is biased toward land ownership and architectural preservation—both of which can be obstacles for tribes.*
    - *Archaeological sites are often culturally and spiritually sensitive (sometimes containing ancestral human remains), and tribes must balance efforts to protect historic resources with concealing their locations.*

Virginal Environmental Geographic Information System (VEGIS)

- *VEGIS "displays cross-media geographical features including petroleum release sites, solid waste facilities, 303D impaired waters, water quality monitoring stations and more."*
    - *The majority of Virginia Indian communities are also missing in VEGIS. Pamunkey and Mattaponi are represented by their (state) reservations and Chickahominy and Eastern Chickahominy are represented by their State designated tribal statistical areas (SDTSAs), which are "statistical entities for state-recognized American Indian tribes that do not have a state-recognized land base (reservation)" yet the remaining communities are lacking representation.*
    - *SDTSAs are "identified and delineated for the Census Bureau by a state liaison identified by the governor's office in each state." Who is the current liaison, and is there support for state-recognized tribes to receive designation if desired? What is the process for new Tribal designated statistical areas (TDSA) to be represented in VEGIS?*

EnviroAtlas

- *EnviroAtlas Interactive Map is an "interactive mapping application that does not require any GIS skills to use and provides ready access to 400+ maps and multiple analysis tools. EnviroAtlas data are organized into one of four categories, based on the type of information they cover: 1) Ecosystem Services and Biodiversity, 2) Pollution Sources and Impacts, 3) People and Built Spaces, and 4) Boundaries."*
    - *Virginia Indian communities are also missing in EnviroAtlas despite an option to view Political Boundaries. There is simple geographical information in the H.R.984 - Thomasina E. Jordan Indian Tribes of Virginia Federal Recognition Act of 2017 that could be used to create a map layer.*

EJSCREEN

- *EJSCREEN is "an environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. EJSCREEN users choose a geographic area; the tool then provides demographic and environmental information for that area. All of the EJSCREEN indicators are publicly-available data. EJSCREEN simply provides a way to*

display this information and includes a method for combining environmental and demographic indicators into EJ indexes."

- *EPA Tribal Areas do not currently include any Virginia Indian tribes.*

Native Land

- *Native Land is "a tool that maps out Indigenous territories, treaties, and languages. It initially began in North America and has spread increasingly worldwide, and new areas are added regularly. This tool is not meant to be an official, legal, or archival resource. It is instead a broadly researched and crowdsourced body of information. It is meant to encourage education and engagement on topics of Indigenous land—particularly, where you are located."*

    - *Each of the state and federally recognized Virginia Indian tribes is represented in Native Land, demonstrating what can be accomplished in the absence of bureaucratic barriers. Despite being a more inclusive tool, Native Land does not build relationships between tribes and the state and federal decision-makers. It is also dependent upon public information, whereas tribal governments have up-to-date, non-public information about tribal residency.*

The lack of tribal representation across state and federal screening tools demonstrates a clear need. There is great power in data visualization, and numerous capabilities are not being used to their full potential. The VCEJ recommends that the Secretary of Natural Resources partner with the Secretary of Education to leverage relationships with state academic institutions for the collaborative development of geospatial tribal community data.

Equitable Consultation Across State & Federally Recognized Tribes with Attention to Organizational Differences

Virginia has 11 state and federally recognized tribes. Each tribe has its own organizational structure varying in tribal membership, tribal government, tribal staff, landholding, and economic development. Capacity for response to consultation requests varies from tribe-to-tribe, and tribal leadership often faces numerous competing priorities. Rather than interpreting a lack of capacity as a lack of interest, state agencies should encourage open engagement and information exchange with tribal communities rather than closed meetings with top-level leadership.

Virginia State Recognized Tribes

Tribe	Year State Recognized	Year Federally Recognized	Location
Mattaponi	17th century		Banks of the Mattaponi River, King William Co.
Pamunkey	17th century	2016	Banks of the Pamunkey River, King William Co.
Chickahominy	1983	2018	Charles City County
Eastern Chickahominy	1983	2018	New Kent County
Rappahannock	1983	2018	Indian Neck, King & Queen County
Upper Mattaponi	1983	2018	King William County
Nansemond	1985	2018	Cities of Suffolk and Chesapeake
Monacan Indian Nation	1989	2018	Bear Mountain, Amherst County
Cheroenhaka (Nottoway)	2010		Courtland, Southampton County
Nottoway of Virginia	2010		Capron, Southampton County
Patawomeck	2010		Stafford County

Tribal leaders and Virginia state leaders should focus on mutual growth and balanced government-to-government relationships. Executive Order 13175 "Consultation and Coordination With Indian Tribal Governments" has been a federal standard for the past 20 years. The Commonwealth has shared similar guidance for implementation at the state level; however, there is currently a lack of collective engagement between Virginia Indian tribes, the Governor, and the General Assembly.

The Virginia Council on Indians (VCI), which was active from 1988-2012 and consisted of 16 members appointed by the Governor, had a mission including education, research, economic development, and tribal recognition. In the absence of the VCI, Virginia Indian tribes have disparate contact with the state government and a lost opportunity for coordination on state tribal issues.[1]

To: 1) implement best practices in consultation and coordination with Indian tribal governments, 2) encourage collaboration across tribes in response to emerging issues, and 3) increase visibility of tribal historical, cultural, and environmental priorities in state government, the VCEJ recommends the consideration of a new VCI with a revised mission that is responsive to the present needs of Virginia Indian communities.

A GUIDE TO THE RECORDS OF THE VIRGINIA COUNCIL ON INDIANS, 1988-2012

A COLLECTION IN THE LIBRARY OF VIRGINIA (ACCESSION NUMBER 50420)

HISTORICAL INFORMATION

In 1982, House Joint Resolution 97 created the Joint Subcommittee Studying the Relationship Between the State and Indian Tribes. Out of the work of this subcommittee came the Commission on Indians, which was created by HB 455 in 1983 and started operation on 1 July 1983. The Commission was created under the Secretary of Health and Human Services and its original purpose was "to gather information, make studies, and conduct research into the Indians tribes of the Commonwealth....[and] to suggest ways to assist Virginia's Indian population in reaching its full economic and social potential." In 1985 the General Assembly changed the name to the Virginia Council on Indians.

The Council reported its findings and recommendations to the Governor and General Assembly 60 days prior to the convening of the session of the General Assembly held in each even numbered year. When it was disbanded, the Council comprised of 16 members appointed by the Governor in the following categories: Representatives from each of the eleven state tribes officially recognized by Virginia; two members at-large from the Indian population residing in Virginia; one citizen member at-large; one member from the House of Delegates appointed by the Speaker of the House; and one member from the Senate of Virginia appointed by the Senate Committee on Privileges and Elections.

In 2002, the Council was charged with creating criteria for the recognition of additional tribes and with making recommendations to the Governor on which tribes to recognize. The Council was moved under the Secretary of Natural Resources in 2004. In 2011, Governor Robert McDonnell's Commission on Government Reform and Restructuring recommended the elimination of the Virginia Council on Indians. Legislation passed by the General Assembly in 2012 abolished the Council as of 30 June 2012.

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[1] "In 2016, the General Assembly passed HB 814 directing the Secretary of the Commonwealth to establish a Virginia Indian advisory board "to assist the Secretary in reviewing applications seeking recognition as a Virginia Indian tribe and to make recommendations to the Secretary, the Governor, and the General Assembly on such applications and other matters relating to recognition." The Virginia Indian Advisory Board has been inactive since 2018 and did not have comparable powers and duties to the Virginia Council on Indians.

APPENDIX B: VIRGINIA UNIVERSAL RECYCLING LAWS

Recommendations

July 2020

Draft Prepared by Tom Benevento and Sarah Koth

I. Executive Summary

This document proposes the executive order known as the Virginia Universal Recycling Law to transition Virginia's waste system to a universal recycling. It has key environmental justice benefits including; increased food for vulnerable populations, reduction in greenhouse gases, and increased green jobs and green infrastructure. In summary, the committee proposes:

- Phasing out disposals including recyclables, yard debris, and food residuals
- Implementing a parallel recycling and composting system
- Implementing a "Pay-As-You-Throw" (PAYT) system, with a voucher program for low-income households.
- Reframing waste as "mismanaged resources" and waste management as "material management"

II. Background and Basis

This recommendation is inspired by Vermont's successful implementation of its Universal Recycling Program known as Act 148. The state created a timeline that showed the process of implementing the act, on which we've based our proposed timeline and universal recycling symbols (See attachment 1). The Vermont General Assembly unanimously enacted Act 148 in May of 2012, undertaking the largest change to its solid waste system in 25 years.

One of its pivotal first decisions was to jettison the concept of waste itself. Waste became "mismanaged resources," which led to the revitalization of the waste management system as "material management." Based on the EPA's model, the state created a Food Recovery

Hierarchy[23] (See attachment 2), which serves as a model for all material management areas. Vermont emphasizes food waste and food donations throughout the Universal Recycling Law.

> *"Vermont's Universal Recycling law has shifted the focus from feeding landfills to feeding hungry Vermonters. What is not donated can be fed to animals, composted, or used to create renewable energy in anaerobic digesters."*
>
> *—Alyssa B. Schuren, VT Dept. of Environmental Conservation Commissioner*

Since its implementation in 2013, the Vermont General Assembly has passed amendments to ensure the smooth transition of waste management.[24] This proposal is based on the original Act 148, and future adjustments will be addressed as necessary. To begin, product-manufacturing methods and product packaging will be reviewed to assist business owners in keeping up with the ever-changing recycling opportunities, and to encourage them to purchase their goods from environmentally responsible manufacturers.[25] We estimated $4.5-5 billion for the change in infrastructure over the next ten years.

III. Universal Recycling Goals[26]

- Decrease waste disposal and increase composting and recycling
- Protect the environment through conserving natural resources and reducing greenhouse gas emissions
- Provide consistent and convenient recycling and composting services statewide.

[23] EPA. (2017) Sustainable management of food: Food recovery hierarchy. [Infographic] Retrieved from https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy
[24] See: 2018 Legislative Changes to Vermont Solid Waste and Bottle Bill Laws
[25] See: Mountain Alliance. (2015). Solid waste implementation plan. Retrieved from https://randolphvt.org/vertical/sites/%7BD7EA543D-4DEE-41D3-BD57-86E65A3C936B%7D/uploads/SWIP_Mtn_Alliance_Draft_-_20150721.pdf
[26] These goals are based on Vermont Dept. of Environmental Conservation State Report on December 2016; see https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/Universal.Recycling.Status.Report.Dec_.2016.pdf

- Incentivize investment in recycling, food donation, and organics diversion to build businesses and jobs that strengthen Virginia's economy.

IV. What the Law Does[27]

1. **Emphasizing recycling reboot and organics** bans the disposal of baseline recyclables, leaf/yard/clean wood debris, and food scraps (to be done in phases). Baseline recyclables include paper (mail, magazines, newspaper, office paper, paper bags, and box board); cardboard; aluminum (cans, foil, and pie tins); steel cans; glass bottles and jars; and hard plastic bottles and containers #1 and #2.
2. **Recycling/composting services** requires transfer stations and haulers that collect trash to also offer collection services for baseline recyclables, leaf and yard debris, and food scraps. Haulers and facilities may charge for these services, but the goal is to create convenience and wider access.
3. **Pay-as-you-throw** sets a variable rate of charge for trash collected from a household. The price is based on the volume or weight collected, resulting in those who produce more waste taking responsibility for the cost of managing such waste. Simultaneously, those who generate less waste —by reducing consumption, reusing, recycling, or composting— pay proportionately less. The PAYT system proves a successful incentive for reducing the number of recyclables that end up in landfills. The program can also be designed to provide vouchers for low-income households.

[27] See Vermont's Universal Recycling Law Status Report Dec. 2016
https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/Universal.Recycling.Status.Report.Dec_.2016.pdf

4. **Public space recycling** requires publicly owned buildings and spaces (i.e. state buildings, parks, schools, town offices, and town parks) to offer a recycling container next to every trash container.

V. Environmental Justice Justifications

One of the most important reasons to advocate for this proposal is the movement toward environmental justice. Environmental justice, as described by the Virginia Secretary of Natural Resources, acknowledges that vulnerable populations are more susceptible to experiencing high or adverse effects from pollution, and such initiatives work toward alleviating these injustices.[28] This proposal serves to encourage the responsible use of resources by all, the protection of the environment, and aims to make large infrastructural changes that will positively impact all populations, particularly those vulnerable to pollution.

Food for vulnerable populations. The Bill Emerson Good Samaritan Food Donation Act encourages people to donate food and grocery products to charitable nonprofit organizations. Unless due to gross neglect, donors are not liable when they donate food they see as fit. Donors may include farmers, processors, distributors, wholesalers, food service establishments, restaurants, or food retailers.[29] For instance, if grocery stores or restaurants donate to food banks, they are protected from civil and criminal liability.[30]

Solid waste in Virginia includes organics, food waste, and recyclables. Without organic waste bans or waste recycling laws at the state level, resources that could be utilized end up in

[28] See: https://www.naturalresources.virginia.gov/initiatives/advisory-council-on-environmental-justice/
[29] See: https://www.gpo.gov/fdsys/pkg/PLAW-104publ210/pdf/PLAW-104publ210.pdf
[30] The Bill Emerson Act protects donors; see also https://law.uark.edu/documents/2013/06/Legal-Guide-To-Food-Recovery.pdf

landfills.[31] Landfilling these materials (particularly food scraps) contributes to climate change by producing methane, a potent greenhouse gas (GHG). These resources could have been donated to emergency kitchens or recycled to animal feed. In Virginia, 893,720 people struggle with hunger. 249,170 of those people are children, meaning 1 in 8 children deal with food insecurity.[32] The average cost for a meal in Virginia is $3.07, yet people facing hunger in Virginia are estimated to report needing $468,094,000 more per year to meet their food needs.[33]

To visualize the data in a local sphere, consider the Blue Ridge Area Food Bank (BRA). The BRA covers one-third of the state geographically, but less than one-third of the population. 1 out of 12 people struggle with hunger in the Blue Ridge Area and 1 in 8 children experience food insecurity.[34] In the food bank network, trucks go directly to their donors to pick up fresh produce and meat, which are distributed to at-risk populations. Retail donations, manufacture donations, and growers/traders donate 67% of BRA's food,[35] of which 27% is fresh produce.[36]

Climate change. Greenhouse gasses (GHG) have actively contributed to the issue of climate change. Discarded food that ends up in landfills decomposes in an unnatural environment, where it emits methane.[37] After implementing Act 148, Vermont is estimated to have reduced GHG by 37% by 2022.[38] Virginia's landfill GHG emissions have yet to be measured.[39] Knowing the scope and success rate of Vermont urges the implementation of this proposal.

[31] See: ReFED, 2018
[32] See: Feeding America. (2016). Map the Meal Gap Project.
[33] See: https://www.reformer.com/stories/brattleboro-leads-in-landfill-diversion,548004
[34] See: https://www.brafb.org/learn/hunger-in-our-area/
[35] See: https://www.brafb.org/learn/hunger-in-our-area/
[36] See: https://www.whsv.com/content/news/Local-politicians-and-high-schoolers-volunteer-at-Blue-Ridge-Area-Food-Bank-493705631.html
[37] See: ReFED. (2018). Virginia food waste policy. Retrieved from https://www.refed.com/tools/food-waste-policy-finder/virginia
[38] See: https://www.nrdc.org/resources/vermonts-universal-recycling-law
[39] Have not yet found measurement of GHG in state of Virginia

Green jobs and green infrastructure. With this growing sector, Virginia's job economy will offer more blue collar jobs. The act incentivizes investment in recycling, food donation, animal feeding, composting, and anaerobic digestion processing businesses. Green sectors are more labor-intensive than other industries, and so investing in green infrastructure could generate more employment per dollar invested.[40] Additionally, the state would gain a strong national reputation of forward-thinking by taking the initiative to implement this green infrastructure.

Organic and recycling. As previously stated, green sectors are more labor intensive, and so require more jobs, such as organic rescue and recycling programs. Changing the infrastructure of material management will promote more green, stable jobs than landfilling systems. This proposal will also mitigate waste disposal fees.

Consumers have welcomed recyclables and compostables, which allows marketers to redefine such materials as valuable resources rather than as waste. Vermont has had success with the PAYT system of recycling, as it proves a successful incentive for reducing the number of recyclables that end up in landfills.

VI. Additional Justifications and Incentives

Taxes. Virginia receives incentives as a credit rather than a deduction, which may be based on food waste, food donations, and vary in the type of donation. These incentives would benefit agricultural businesses, which make up 54,000 jobs across the state and Virginia's largest private industry.[41] Restaurants and grocers would also benefit from donation incentives.

[40] See: Yap, L. (2017). Green jobs: An alternative to neoliberalism? Recycling in Buenos Aires, Argentina and Toronto, Canada. Retrieved from https://yorkspace.library.yorku.ca/xmlui/handle/10315/33413 https://yorkspace.library.yorku.ca/xmlui/handle/10315/33413

[41] See: http://www.vdacs.virginia.gov/markets-and-finance-agriculture-facts-and-figures.shtml

Tax incentives make food donations more cost-effective and economically beneficial, as opposed to simply incentivizing less waste and helping people struggling with hunger. According to the Virginia Tax Code, food donations benefit 30% of fair market value, which can be up to $5,000 annually. Eligible donors include people engaged in the business of farming. They may donate food crops such as grains, fruits, nuts, or vegetables. Eligible recipients include nonprofit food banks, people in need, or other nonprofits.[42]

Along with the state taxes, businesses will gain from federal level tax incentives. The two tax deductions for food donations are a general deduction and an enhanced deduction. An enhanced deduction offers a significantly higher financial benefit. When the donated food meets certain criteria, the enhanced deduction allows businesses to deduct a value for donated food that is almost double the general deduction. Such incentives have proven to motivate agricultural businesses.[43]

VII. Work with Virginia Stakeholders

In order to implement this proposal, the following stakeholders will need to be considered and included in dialogue:

Solid Waste District Managers Assn.	Superintendents Association
Solid Waste Haulers	Dept. of Health Sanitarians
Retail Grocers Association	Agency of Agriculture
Health Care Association	Buildings and General Services
Campus Sustainability Network	Public Service Dept.

[42] See: ReFED. (2018). Virginia food waste policy. Retrieved from https://www.refed.com/tools/food-waste-policy-finder/virginia
[43] See: ReFED. (2018). Virginia food waste policy. Retrieved from https://www.refed.com/tools/food-waste-policy-finder/virginia

Assoc. Of Hospitals & Health Systems	Dept. of Corrections
VA Municipal League	Agency of Transportation
Principals Association	Fish and Wildlife Dept.
School Boards Association	Dept. of Forests, Parks, & Rec.
Nonprofit Organizations	Religious Organizations

VIII. Virginia and National Overview of Universal Recycling and Zero Waste

The United States does not have nationwide laws concerning recycling, which places the responsibility and power on the state and local governments.[44] The EPA functions at the national level to oversee waste issues, and it has set national goals for reducing waste by half by the year 2030.[45] The EPA and the United States Department of Agriculture (USDA) set this first domestic goal in September 2015, and it was based on the United Nations Sustainable Development Goals. Participants who have signed up to become a United States Food Loss and Waste 2030 member include Aramark and Walmart.[46] They champion to reach the United States 2030 Food Loss and Waste Reduction Goal.

In Virginia, each county, town, or regional authority must have a recycling rate of at least 25% unless they have a population density of less than 100 people per square mile or an unemployment rate 50% higher than the statewide average, in which case their rate must be at least 15%.[47,48] Only about 10% of glass is being recycled yearly in Virginia, which means that

[44] See: https://harmony1.com/recycling-laws/
[45] See: https://www.epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal
[46] See: USDA Food Loss and Waste https://www.usda.gov/foodlossandwaste
[47] Mandatory Recycling Rates of Localities. (n.d.). Retrieved February 2, 2020 from https://www.deq.virginia.gov/Programs/LandProtectionRevitalization/RecyclingandLitterPreventionPrograms/MandatoryRecyclingRates.aspx
[48] Frequently Asked Questions. (n.d.). Retrieved February 2, 2020 from https://www.deq.virginia.gov/Programs/LandProtectionRevitalization/RecyclingandLitterPreventionPrograms/FrequentlyAskedQuestions.aspx

about 315,000 tons of glass is being sent to landfills. The glass is commonly ground up and used as landfill daily cover, or more recently, it is being converted to be used for road construction projects. [49] In state policies and regulation there is little mention of food waste goals for Virginia specifically, but nationally 38 million tons of food was thrown away in 2014. [50]

A number of states and cities have passed more stringent recycling laws. Michigan establishes deposits or refunds values on beverage containers, while other states emphasize recycling goals, such as California and Illinois. Wisconsin, Minnesota, Michigan,[51] and North Carolina have passed laws concerning landfill bans of recyclable material.[52] The state of Massachusetts passed a law called the Commercial Food Waste Disposal Ban, in which food waste haulers, processors, and food rescue organizations have generated a total of more than $46 million of labor income and created 900 direct and indirect jobs. It also stimulated $175 million in economic activity across the state during the first two years of its landfill ban. The state of Connecticut and the city of Seattle, Washington have implemented mandatory recycling laws that may fine citizens who throw away a certain percentage of recyclable materials in their garbage waste.[53]

As described in Act 148, Vermont has banned recyclable materials, food and yard waste, and wood from its landfills. There are also voluntary programs and educational programs to increase recycling where it is not mandated by law.[54] Since we have based this proposal off of

[49] Glass Container Recycling - Virginia Recycling Association
[50] Waste Reduction. (n.d.). Retrieved February 2, 2020 from https://www.deq.virginia.gov/Programs/PollutionPrevention/VirginiaGreen/VirginiaGreenResourcesLinks/WasteReduction.aspx
[51] See http://www.wasteresources.wi.gov/docview.asp?docid=5954&locid=83; and https://en.wikipedia.org/w/index.php?title=Recycling_in_the_United_States&oldid=860031006
[52] See http://wastenot.enr.state.nc.us/swhome/landfillbans.asp
[53] See:https://www.ct.gov/deep/cwp/view.asp?a=2714&q=324894&deepNav_GID=1645 ; https://en.wikipedia.org/w/index.php?title=Recycling_in_the_United_States&oldid=860031006
[54] See: https://en.wikipedia.org/w/index.php?title=Recycling_in_the_United_States&oldid=860031006

Act 148, a close comparison of Virginia and Vermont will aid in the process of creating a successful system.

As of 2017, the population of Vermont is 623,457.[55] In 2016, Vermont produced 585,789 tons of municipal waste. Due to the implementation of the Universal Recycling Law, 211,152 tons of that waste was diverted from the landfill.[56] A statewide study shows that Vermont's waste composition could be reduced by half. Virginia houses 8,470,020 people, which inevitably leads to more waste production than Vermont. Because of its larger population, Virginia would benefit from this proposal as a state and contribute to the national and global community in reducing its footprint.

IX. Universal Recycling Benefits

- Saves valuable resources and promotes sustainability
- Reduces GHG emissions
- Supports green jobs, creating new markets and business opportunities
- Reduces need for landfills, improving the health of our environment

To exemplify the benefits of this proposal, consider Brattleboro, Vermont. Brattleboro began a pilot program of curbside organics collection that incorporated food scraps. After a successful run, Brattleboro extended this program to all residents. To cover the startup cost of the curbside organics recycling program, the town used the savings it had accumulated from the reduction in its tipping fees resulting from its compost and recycling program. As of August 2018, Brattleboro has diverted nearly 64% of its solid waste stream, surpassing the state goal of

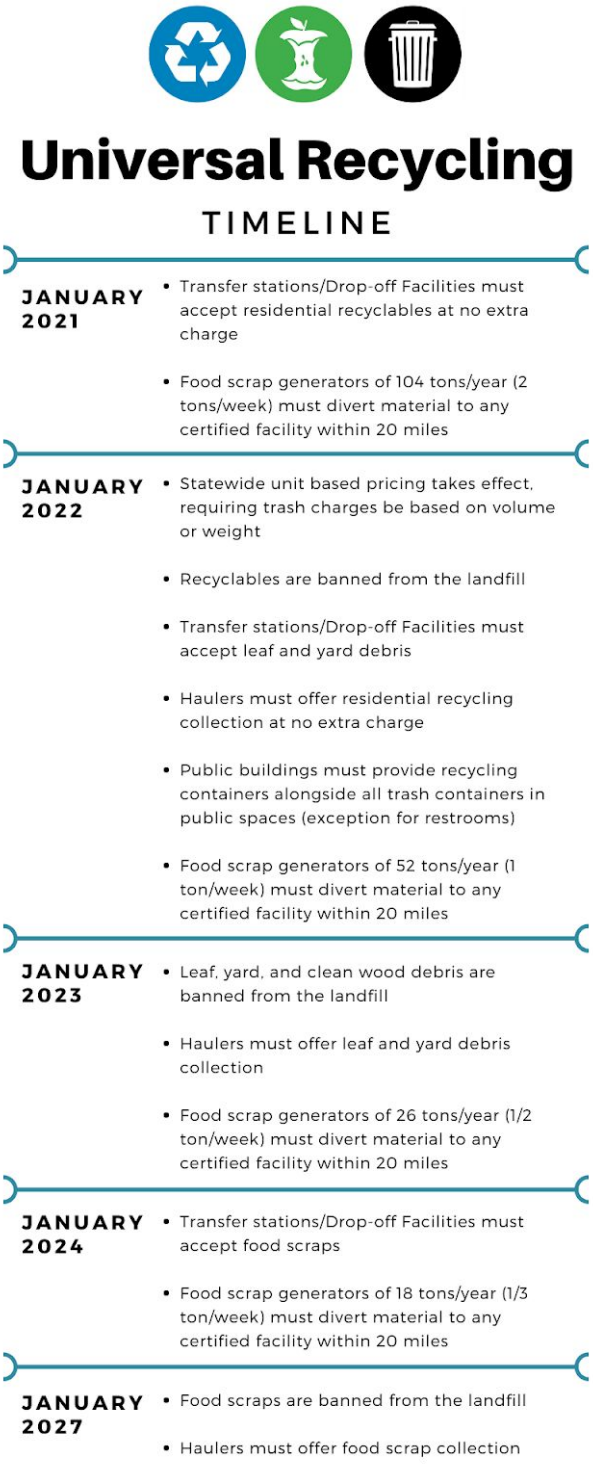
[55] See: US Census Bureau, 2017 estimates
[56] See: https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/2016-Diversion-and-Disposal-Report.pdf

50% diversion rate by 2020.[57]With these initiatives in mind, we propose that economic vitality and growth can coincide, and thrive, with social and ecological justice.

[57] See: https://www.reformer.com/stories/brattleboro-leads-in-landfill-diversion,548004

Attachment 1: Proposed Timeline

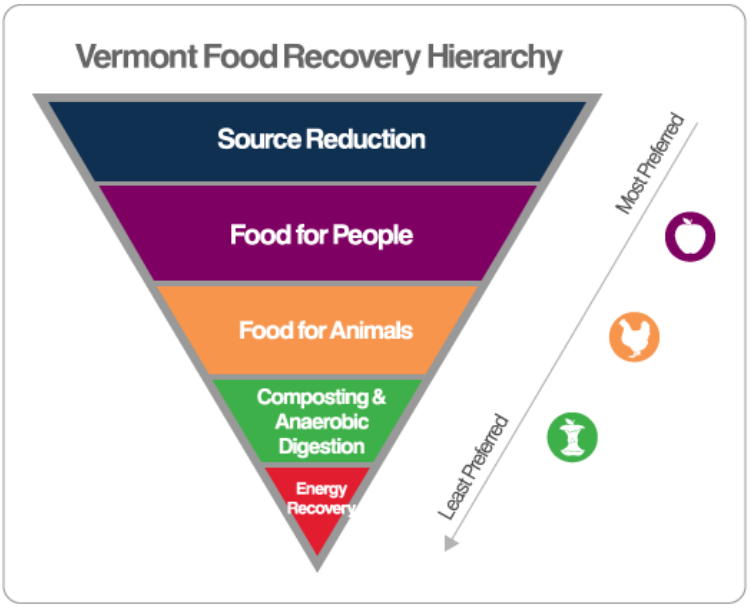
The symbols at the top of the timeline were adopted from the Vermont Agency of Natural Resources (ANR), and is public domain.[58]



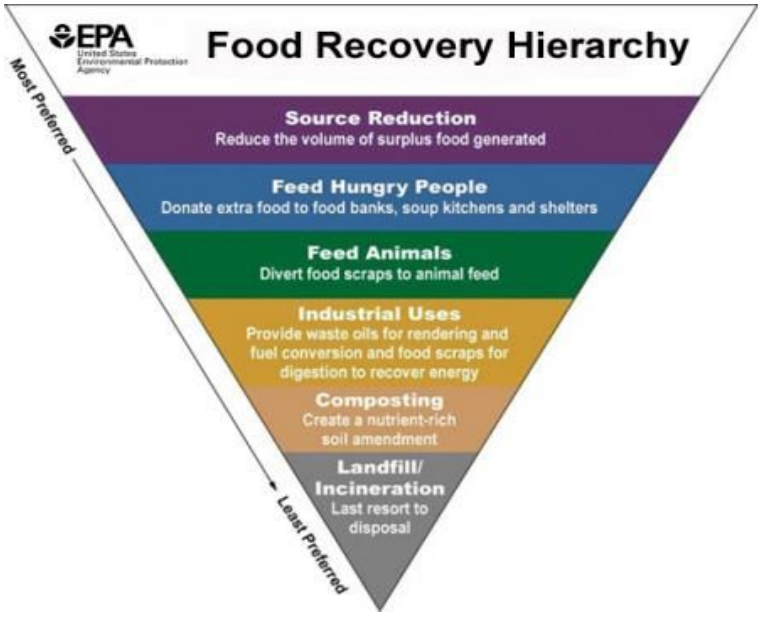
[58] See Agency of Natural Resources (2018) Universal recycling downloads. Retrieved from https://dec.vermont.gov/waste-management/solid/universal-recycling/universal-recycling-symbols

Attachment 2: Food Recovery Hierarchy

[59]



[60]



[59] Tamarak Media. (2012). The Vermont food recovery hierarchy. [Infographic]. Retrieved from http://highfieldscomposting.org/introduction/the-recovery-hierarchy

[60] EPA. (2017) Sustainable management of food: Food recovery hierarchy. [Infographic]

APPENDIX C: Recommendations 20-22 Background Information

The following section details recommended strategies and policies to ensure a more sustainable, healthier, and equitable agricultural system.

1. **Land Access -** *Fostering a new generation of culturally diverse farmers through equitable and inclusive practices.*

Innovative programs can transform the historical discrimination of government policies and agency practices against socially disadvantaged farmers. Equitable policies must limit land consolidation by large-scale corporate agriculture and investment funds in order to make more farmland available to beginning and socially-disadvantaged farmers who plan to farm sustainably. The rights of landowners to set prices and influence land management must be integrated by the need to establish farmers who practice sustainable agriculture.[61]

Policy recommendations:

1. Create educational and legal/grant assistance programs to address heirs' property issues and loss of black farmland and indigenous land.
2. Appoint a *Land Commission* that includes black, hispanic, and indigenous members to conduct a periodic statewide land tenure study. This will provide a holistic perspective on the socio-economic, political, and market-based factors limiting equitable access to land and provide policy recommendations to address these inequities. (Consider state financial tools that go to farmers)

[61] Meleiza Figueroa and Leah Penniman,Land Access for Beginning and Disadvantaged Farmers, Green New Deal Policy Series:Food and Agriculture, pg.8, March 2020.

3. Study state own lands that have the potential for agriculture and explore potential state acreage to be converted to community land trusts for farmers from traditionally marginalized and exploited groups. Establish state and federal partnerships for land banks of properties to make available below market rate to new culturally diverse farmer cooperatives under special sustainable agriculture covenants.In addition, explore state owned land to be converted to community land trusts for farmers from traditionally marginalized and exploited groups. *(Example legislation: California AB936 - REEAL Act of 2019).*
4. Limit land investment by large corporations and lower barriers to entry for new farmers from disadvantaged communities. *(Example legislation: North Dakota Cent. Code § 10-06.1-01 to -25, recently upheld in state court; South Dakota Codified Law 47-9A - Corporate Farming Restrictions)*
5. The state offers various resources for those looking to start a farm, but very few grant/loan opportunities. Create state grant and loan guarantee programs to strengthen land access rights for culturally diverse and beginning farmers, as well as help meet marketing challenges faced by small farmers and rural communities. Examples include strengthening/establishing local markets, Community-Supported Agriculture (CSA) networks between producers and consumers, and providing incentives for cooperative business development.

II. Regenerative and Sustainable Agriculture - *Providing training and technical assistance to support culturally diverse farmers.*

There are many obstacles for new and current farmers that want to establish operations based on agroecology and regenerative agriculture. USDA Natural Resource Conservation Service programs exist with soil experts but receive very little funding to train farmers.[62] Additionally, the current crop insurance programs and subsidy programs support commodity crop production instead of food production and ecological restoration. Increasing investments in state conservation programs, and supply management programs centered on ensuring that markets provide fair prices for farmers are critical for the family farming sector. Reforming current federal farming subsidy programs to prioritize independent, family-scale producers and eliminate loopholes that allow corporations and large-scale absentee landowners to receive the majority of farm program benefits are also part of this solution. Innovative programs must both ensure that a new generation of small-scale and mid-scale farmers can make a living feeding their communities, nurturing land and watershed health, and addressing the climate crisis, while also addressing the unprecedented levels of corporate control and concentration that are pushing farmers off the land.[63]

Policy recommendations:

1. Develop and provide anti-oppression training for state agriculture departments and support existing community education groups that offer culturally diverse approaches.
2. Create a *Land Commission* that includes black, hispanic, women, and indigenous members who can work closely with the Virginia Department of Agriculture and

[62] Horst, Megan, and Amy Marion. "Racial, Ethnic and Gender Inequities in Farmland Ownership and Farming in the U.S." Agriculture and Human Values, pp. 1–16. October 2018.
[63] Meleiza Figueroa and Leah Penniman,Land Access for Beginning and Disadvantaged Farmers, Green New Deal Policy Series:Food and Agriculture, pg.9, March 2020.

Consumer Services and VSU's Small Farm Outreach program, to increase access to federal farm loan and price support programs for beginning farmers, racial and ethnic minority farmers and women producers. This would be designed to increase access to value-added, direct sale, organic, and specialty crop operations, agricultural youth organizations needing financial assistance for income-producing, educational, and agricultural projects, urban farmers and roof-top producers, and operations using alternative farming methods such as hydroponics, aeroponics, vertical farming, and freight container farming.

3. Increase funding to state conservation programs such as the Virginia Cooperative Extension, the Virginia Department of Conservation and Recreation, and the Agricultural Stewardship program to increase on-ground staff and technical assistance capacity to train in the principles of agroecology targeting disadvantaged farmers. Invest in and adapt from existing programs such as Future Harvest CASA's Field School and Farm School NYC for examples of culturally diverse agricultural training.https://www.futureharvestcasa.org/foodshed-field-school and http://www.farmschoolnyc.org/. Additional information can be found in *Data for Progress' Regenerative Farming* document.
4. Increase funding in upcoming years for Virginia House Bill 1509 (McQuinn) Virginia Food Access and Investment Program and Fund.
5. Earmark funds for down-payment assistance and financial support grants for new farms practicing sustainable agriculture through the first 10 years of operation.

III.) Farmer Administration - *Promoting racial justice in farm ownership, operation, and income.*

White people own 97% of all Virginia farmland and thus generate nearly all farm-related income from land ownership.[64] Black, hispanic, and indigenous farmers, especially those renting land, can face discrimination in a system that provides legal and social power to landowners.[65] Farmers that are vulnerable, because of their race, ethnicity, legal status, or farming history are particularly at risk of predatory lease arrangements. Creating new recourse and oversight for farmers who experience discrimination and state immigration reform is vital in providing a pathway for beginning and socially disadvantaged farmers.[66]

Policy recommendations:

1. Create an Office of Equity at the Virginia Department of Agriculture and Consumer Services (VDACS) with robust anti-discrimination guidelines to review policy proposals and mandate black, hispanic, and indigenous participation on agricultural decision making boards.
2. Empower the new office to legally address claims of discrimination in agricultural credit, land credit & markets; conduct oversight of VDACS practices. (Model: National Labor Relations Board)

[64] 2017 Census for Agriculture: Race/Ethnicity/Gender Profile.
[65] Federation of Southern Cooperatives/ Land Assistance Fund. Land Loss Trends Among Socially Disadvantaged Farmers and Ranchers in the Black Belt Region From 1969 to 2018. Report submitted to Socially Disadvantaged Farmers and Ranchers Policy Research Center, 2018. https://bit.ly/2qNTe81
[66] Meleiza Figueroa and Leah Penniman,Land Access for Beginning and Disadvantaged Farmers, Green New Deal Policy Series:Food and Agriculture, pg.10, March 2020.

3. Examine the role of heirs property in the loss of land for black farmers and Virginia tribal communities, and offer education and technical assistance for families to retain property.
4. Support comprehensive immigration reform that provides pathways to citizenship. The proposed "blue card" legislation in California provides a template for a bare minimum apporoach that would protect farm tenants who are currently undocumented.[67]
5. Examine and repeal any Jim Crow era legislation still on the Virginia books related to farming and land use/rights for farmers and tenant farmers. Explore and develop decolonizing land programs that return to indigenous sovereignty.

[67] Meleiza Figueroa and Leah Penniman,Land Access for Beginning and Disadvantaged Farmers, Green New Deal Policy Series:Food and Agriculture, pg.10, March 2020.

APPENDIX D: Virginia Department of Health Lead Data

LOCALITY	FIPS	2014	2015	2016	2017	2018
ACCOMACK COUNTY	51001	22	6	34	30	33
ALBEMARLE COUNTY	51003	17	22	19	17	13
ALLEGHANY COUNTY	51005	3	3	4	2	6
AMELIA COUNTY	51007	3	1	1	0	4
AMHERST COUNTY	51009	0	2	1	3	3
APPOMATTOX COUNTY	51011	1	0	2	3	6
ARLINGTON COUNTY	51013	21	28	36	35	46
AUGUSTA COUNTY	51015	5	18	15	16	22
BATH COUNTY	51017	1	2	1	0	0
BEDFORD COUNTY	51019	2	4	4	8	8
BLAND COUNTY	51021	0	2	1	2	0
BOTETOURT COUNTY	51023	2	0	5	4	7
BRUNSWICK COUNTY	51025	3	1	1	2	6
BUCHANAN COUNTY	51027	3	0	1	4	2
BUCKINGHAM COUNTY	51029	4	3	2	2	3
CAMPBELL COUNTY	51031	4	7	7	2	8
CAROLINE COUNTY	51033	4	5	5	4	3
CARROLL COUNTY	51035	7	5	2	7	9
CHARLES CITY COUNTY	51036	0	2	1	3	2
CHARLOTTE COUNTY	51037	3	4	6	2	10
CHESTERFIELD COUNTY	51041	26	35	41	42	48
CITY OF ALEXANDRIA	51510	25	35	83	120	68
CITY OF BEDFORD	51515	0	1	0	0	0
CITY OF BRISTOL	51520	2	3	2	8	1
CITY OF BUENA VISTA	51530	0	3	3	5	4
CITY OF CHARLOTTESVILLE	51540	9	8	13	29	20
CITY OF CHESAPEAKE	51550	18	38	45	26	30

CITY OF COLONIAL HEIGHTS	51570	1	2	2	2	1
CITY OF COVINGTON	51580	0	1	3	0	1
CITY OF DANVILLE	51590	9	5	21	15	21
CITY OF EMPORIA	51595	0	3	1	0	0
CITY OF FAIRFAX	51600	1	0	4	1	1
CITY OF FALLS CHURCH	51601	0	2	1	0	0
CITY OF FRANKLIN	51602	0	2	3	2	2
CITY OF FREDERICKSBURG	51603	13	11	12	27	14
CITY OF GALAX	51604	6	1	2	8	5
CITY OF HAMPTON	51605	7	13	19	5	15
CITY OF HARRISONBURG	51606	10	7	6	17	16
CITY OF HOPEWELL	51607	4	0	7	5	8
CITY OF LEXINGTON	51608	1	2	4	7	2
CITY OF LYNCHBURG	51609	16	11	25	22	24
CITY OF MANASSAS	51610	8	4	10	11	10
CITY OF MANASSAS PARK	51611	2	1	3	9	5
CITY OF MARTINSVILLE	51612	0	4	0	1	2
CITY OF NEWPORT NEWS	51613	22	28	38	65	32
CITY OF NORFOLK	51614	27	41	50	35	42
CITY OF NORTON	51615	1	0	3	1	0
CITY OF PETERSBURG	51616	8	5	8	7	3
CITY OF POQUOSON	51617	1	0	0	2	1
CITY OF PORTSMOUTH	51618	10	26	16	27	13
CITY OF RADFORD	51619	0	1	2	3	1
CITY OF RICHMOND	51620	40	39	76	72	69
CITY OF ROANOKE	51621	21	20	34	37	33
CITY OF SALEM	51622	1	1	6	2	1
CITY OF STAUNTON	51623	4	4	7	3	12
CITY OF SUFFOLK	51624	12	13	18	21	20
CITY OF VIRGINIA BEACH	51625	38	44	62	40	46
CITY OF WAYNESBORO	51626	1	1	7	7	5
CITY OF WILLIAMSBURG	51627	9	6	4	8	0

CITY OF WINCHESTER	51628	10	4	8	4	10
CLARKE COUNTY	51629	5	1	2	2	5
CRAIG COUNTY	51630	0	0	2	0	2
CULPEPER COUNTY	51631	16	10	16	9	16
CUMBERLAND COUNTY	51632	1	2	1	1	6
DICKENSON COUNTY	51633	2	2	6	2	3
DINWIDDIE COUNTY	51634	2	2	2	5	4
ESSEX COUNTY	51635	4	3	0	2	2
FAIRFAX COUNTY	51636	135	133	212	245	261
FAUQUIER COUNTY	51637	15	8	9	31	13
FLOYD COUNTY	51638	5	6	6	8	5
FLUVANNA COUNTY	51639	3	5	2	5	2
FRANKLIN COUNTY	51640	4	6	11	12	8
FREDERICK COUNTY	51641	10	5	5	13	18
GILES COUNTY	51642	6	2	4	6	12
GLOUCESTER COUNTY	51643	2	8	3	2	7
GOOCHLAND COUNTY	51644	4	2	2	2	3
GRAYSON COUNTY	51645	4	1	6	8	4
GREENE COUNTY	51646	0	6	3	4	10
GREENSVILLE COUNTY	51647	1	0	1	4	2
HALIFAX COUNTY	51648	9	3	8	12	14
HANOVER COUNTY	51649	8	11	13	14	15
HENRICO COUNTY	51650	50	43	109	138	94
HENRY COUNTY	51651	1	1	6	3	4
HIGHLAND COUNTY	51652	0	0	0	0	1
ISLE OF WIGHT COUNTY	51653	1	5	4	6	3
JAMES CITY COUNTY	51654	4	2	3	6	8
KING & QUEEN COUNTY	51655	1	1	3	1	2
KING GEORGE COUNTY	51656	5	3	6	5	6
KING WILLIAM COUNTY	51657	2	4	1	4	1
LANCASTER COUNTY	51658	3	1	1	1	2
LEE COUNTY	51659	3	2	6	2	4

LOUDOUN COUNTY	51660	76	71	76	77	76
LOUISA COUNTY	51661	5	4	7	10	8
LUNENBURG COUNTY	51662	4	3	3	7	11
MADISON COUNTY	51663	2	1	3	3	4
MATHEWS COUNTY	51664	0	1	0	6	5
MECKLENBURG COUNTY	51665	6	4	6	7	9
MIDDLESEX COUNTY	51666	2	1	3	3	3
MONTGOMERY COUNTY	51667	14	8	14	14	7
NELSON COUNTY	51668	4	2	4	7	5
NEW KENT COUNTY	51669	4	2	3	5	4
NORTHAMPTON COUNTY	51670	11	5	19	6	6
NORTHUMBERLAND COUNTY	51671	0	2	1	2	1
NOTTOWAY COUNTY	51672	3	4	11	3	6
ORANGE COUNTY	51673	3	11	11	14	6
PAGE COUNTY	51674	4	6	3	2	5
PATRICK COUNTY	51675	1	0	3	1	4
PITTSYLVANIA COUNTY	51676	3	5	5	9	7
POWHATAN COUNTY	51677	4	3	1	3	5
PRINCE EDWARD COUNTY	51147	7	0	11	11	13
PRINCE GEORGE COUNTY	51149	3	2	8	4	3
PRINCE WILLIAM COUNTY	51153	59	53	118	107	130
PULASKI COUNTY	51155	3	5	5	7	6
RAPPAHANNOCK COUNTY	51157	0	0	3	0	1
RICHMOND COUNTY	51159	1	0	0	1	1
ROANOKE COUNTY	51161	9	12	5	5	13
ROCKBRIDGE COUNTY	51163	8	8	6	10	2
ROCKINGHAM COUNTY	51165	6	22	25	34	29
RUSSELL COUNTY	51167	5	6	3	7	13
SCOTT COUNTY	51169	4	2	11	5	2
SHENANDOAH COUNTY	51171	10	16	8	10	9
SMYTH COUNTY	51173	3	6	16	10	16
SOUTHAMPTON COUNTY	51175	0	1	2	0	4

SPOTSYLVANIA COUNTY	51177	16	14	17	20	12
STAFFORD COUNTY	51179	5	9	31	27	22
SURRY COUNTY	51181	3	1	4	2	1
SUSSEX COUNTY	51183	0	1	2	4	0
TAZEWELL COUNTY	51185	1	4	10	12	7
WARREN COUNTY	51187	13	1	6	10	9
WASHINGTON COUNTY	51191	7	6	6	6	9
WESTMORELAND COUNTY	51193	1	2	1	4	4
WISE COUNTY	51195	3	3	6	9	2
WYTHE COUNTY	51197	5	8	8	15	12
YORK COUNTY	51199	6	1	4	5	6

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