South County Democratic Club Policy Paper: the Environment August 30, 2022

The Issue(s):

1) Global Warming and Sea Level Rise: Global warming is real. Most of this warming is caused by human activity--the introduction of greenhouse gases into our atmosphere. The largest (and most controllable) greenhouse gas is carbon dioxide (CO^2) which is emitted from our gasoline powered cars, trucks, and buses and from the power plants generating our electricity. The effects of global climate change can be seen in real time in the increasing severity of weather events and in ongoing sea level rise. Annapolis has experienced the effects of sea level rise with regular flooding of the City Dock area but all the shorelines along the Bay are facing similar challenges.

(2) Pollution of the Chesapeake Bay: We in Anne Arundel County also face the continuing degradation of the Chesapeake Bay. Despite efforts at the national and state levels to "protect the Bay," we have seen decreasing water quality in the Bay for almost a century. Much of this loss of water quality is due to the introduction of nitrogen and phosphorus into our streams as runoff from poor development and agricultural practices. Unfortunately, much of this runoff also comes from Pennsylvania but winds up in the Bay in Maryland.

Turbidity refers to the lack of clarity in water. Anne Arundel County has over 500 miles of shoreline not to mention many more rivers, streams and estuaries. All have high turbidity. Much of the murkiness—the high-turbidity—of the waters in our local estuaries and in the Bay is caused by a century of backed-up sediment that has collected behind the Conowingo Dam on the Susquehanna River. When there is any serious storm, the dam overflows and the sludge is deposited into the Bay. This problem is exacerbated by poor regional development practices that have allowed the clear-cutting of trees next to our rivers and estuary shorelines. These tree barriers act to absorb the nitrogen and phosphorus that can enter our bay.

Sea level rise and pollution of the Chesapeake Bay are problems larger than Anne Arundel County, but there are things that our county can and should do to address or mitigate these problems.

Our Policy Recommendations:

1) **Promote electric and hybrid vehicles.** Citizens can and should switch to electric and hybrid cars and choose clean energy sources for power. The County should switch to hybrid-electric or electric vehicles to the extent practicable as they replace aging vehicles. Schools should also pioneer the use of electric buses. Electric school buses have been around since 1994 yet less than 1% of school buses nationally are electric. Anne Arundel County should seek to become a leader in the use of electric buses. All of these efforts, however, are dependent upon the existence of a green power grid. As of now, such a grid does not exist. There are federal funds available to begin

build out this infrastructure. The County (and the State) should effectively deploy and supplement these funds.

2) Continue to control development that threatens our rivers and shorelines. County Executive Pittman and his administration has taken major steps toward controlling development that has been polluting our rivers and shorelines. These include: strict prohibition of development in any area deemed a "wetland;" preventing deforestation and requiring re-forestation; and promoting high-density development.

2) Press for the dredging of the Conowingo Dam. The shallow waters behind the Conowingo Dam need to be dredged to reduce the massive amount of sediment that has accumulated over the last century of Pennsylvania farm and industry runoff. A recent study by George Mason University has shown that a steady-state dredging operation could be effectively implemented by the State of Maryland to dredge these spoils and turn them into manufactured bricks that can be sold to offset the substantial dredging costs. Anne Arundel County cannot implement this program, but we should demand that the State of Maryland do so.

3) Rising shorelines need to be raised and stabilized by County public works. BayLand Consultants & Designers, Inc. has recently completed an engineering study for the County that has identified the areas that need sustained dredging and spoils deposits to stabilize our threatened shorelines. They analyzed the coastlines of Tracey Creek, Rockhold Creek, Parker Creek, Carrs Creek and Broadwater Creek. Over 220,000 cubic yards of sediment has been dredged from these South County channels over the last 20 years at a cost of over \$18.7 million and dredging will continue to be required at an even higher cost. We support a program to use the dredged materials to <u>reverse</u> our shoreline erosion, provide marine habitat, and increase wetlands storm surge protection and rising water-level protection to our coastal communities. A properly designed program should save the county over \$8 million in dredging costs.

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