



**2021 ANNUAL REPORT TO THE  
BALTIMORE COUNTY EXECUTIVE AND  
BALTIMORE COUNTY COUNCIL**

November 2, 2022

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## **BACKGROUND**

The Baltimore County Advisory Commission on Environmental Quality (CEQ) which was established by legislation in 2003, met eight times during the 2021 calendar year. Commission Chair, Lois Jacobs, set the agendas and presided at the meetings through April 2021. At the April 28<sup>th</sup> meeting, the Chairmanship was passed to Dr. Brian Fath, who presided at that meeting and through the rest of 2021. Agendas from May - December 2021 were set by him. Secretary Andy Miller took minutes at CEQ meetings.

Still under the influence of the Covid-19 Pandemic and the modifications that were necessary, all meetings were by Webex. The Commission was now used to meeting remotely, as were most County Departments and Agencies. Once vaccines were available, we started thinking about an outdoor in-person event late in the Spring of 2021. In June 2021 Commissioner Carol Newill, MD PhD hosted an outdoor social at her home.

The CEQ 2021 Annual Report to the Baltimore County Executive and Baltimore County Council fulfills the requirement specified in the Baltimore County Code subsection 3-3-2006 and provides a summary of CEQ activities and actions in 2021.

## **CEQ MEMBERSHIP**

The Commission saw active and purposeful participation by its members throughout 2021. There were many membership changes in 2021, which are reflected below. There were also changes in County Departments and Agencies that are cited throughout this report. CEQ membership included the following:

<b>Name</b>	<b>Appointed By</b>
Brian Bernstein	County Executive at Large - to March 2021. Shifted to Business Community Representative March 2021, replacing Rex Wright
Mahnaz Mazaheri Assadi, PhD	County Executive at Large - replaced Brian Bernstein in this position April 2021
Linda Davis	County Executive at Large - to April 2021
Justin Gallardo	County Executive at Large from July 1 <sup>st</sup> . Replaced Linda Davis
Brian Fath, PhD, Chair	County Executive at Large - Chair from April 2021
S. Glenn Elseroad	County Executive Agricultural Representative - to mid-year 2021
Andy Miller, PhD	County Executive Educator and Scientist
Joan Plisko, PhD	County Executive Environmental Organizations Representative
Jennifer Langford	County Executive Home Builders Representative from 7-29-21
Valerie Androustopoulos	Council District 1
Lois Jacobs, Chair	Council District 2 - Chair till April 2021
Chris Overcash	Council District 3
Lynda Eisenberg	Council District 4
Carol Newill, MD, PhD	Council District 5
Avery Harden	Council District 6 - to mid-year 2021
Karen Wynn	Council District 7

Brian Lindley  
Kui Zhao, MCP  
Sheldon Epstein, PE  
Radu Zamfirache

County Government Liaison, EPS  
County Government Liaison, Planning - to October 2021  
County Government Liaison, DPW - to mid-year 2021  
County Government Liaison DPW - from September 2021

## **CEQ MISSION STATEMENT**

CEQ activities in 2021 furthered the mandates established for the Commission.

The purpose of the CEQ, through its duties and responsibilities as described in the Baltimore County Code 2015, subsection 2-2-21, is to encourage protection and preservation of the natural environment in Baltimore County and its waterways, including the Chesapeake Bay, by educating the community to make environmentally sustainable decisions and by enlightening, advising, and initiating dialogue with County officials. It facilitates communication between the County government and its residents on environmental needs, programs, and legislation.

As a group of dedicated volunteers for environmental integrity, our members understand the need to follow the Science and to consider, evaluate and monitor County environmental policies and procedures, and suggest modifications when needed.

## **WORK ITEMS / REPORTS / PRESENTATIONS**

At the January 27<sup>th</sup> CEQ meeting there were many updates to share with the Commission:

- A. Steve Lafferty has been appointed as Director of Planning. Someone will be appointed to his Sustainability position, but no information yet on who will be Steve's replacement or when it will happen. A suggestion was made to have Steve meet with our Commission to discuss his vision for Planning once he is settled into his new roles, he might also debrief us on where things were as he left the Sustainability Coordinator position.
- B. The County Executive was informed of the resignation of Rex Wright (who moved to another County). His position (Business/Industry) will need to be filled as well as the Home Builders position.
- C. Restructuring/Changes for Boards and Commissions: Brian Lindley, Liaison, EPS. There will be a new system: the Granicus system will allow people to volunteer to serve or be re-appointed. It is not in use yet, but Brian sent us an e-mail with some information.. Presently, our County liaisons bridge the gap between Commissions and the County Executive's office to keep track of actions and activities. The new system will improve communication and coordination among Commissions and Boards. The website will continue as the primary place to post information. Minutes and older reports will mostly be kept in backup storage on the County System. CEQ will therefore, under the lead of Linda Davis, gather minutes and older reports and as many missing documents as possible for future review and research. These materials have historical value and provide contexts for discussions and presentations over time.

NEW MEMBERS ORIENTATION - Discussion held at the December meeting:

The Advisory Commission on Environmental Quality shall consist of 15 members, all of whom shall possess demonstrated interest, knowledge, or training in environmental issues, environmental preservation, resource conservation, or related disciplines. 7 are appointed by the County Council, 8 appointed by County Executive. Term Length: 3 years, beginning on July 1. There are no Term Limits. **2021 changes in County Exec appointments** were recommended by Samantha O'Neil, Senior Advisor to the County Exec, whose role is to coordinate external communication, outreach & partnerships, and policy development.

Open positions are: Agricultural community rep; Council District 6; Planning department liaison.

**What is expected from members of the CEQ?** - Municipal Code addresses only being removed due to being absent for more than 1/3 of the scheduled meetings (i.e. absent for more than 3 of our 9 meetings/year) unless the absences are due to a prolonged illness that is not thought to permanently interfere with serving the rest of the term.

**Duties and Responsibilities:** "The Commission shall have the following duties and responsibilities:

- (1) Develop a dialogue on environmental issues affecting Baltimore County and the waterways that are adjacent to the County, including the Chesapeake Bay and its tributaries;
- (2) Make recommendations concerning any environmental question or issue referred by the County Council, any member of the County Council, or the County Executive; and
- (3) Assist County government in educating the citizens of Baltimore County on issues concerning the environment."

**Interactions with the County Council or the County Executive staff to**

- (1) Further develop dialog and to ascertain issues on which our current CEQ membership could effectively provide useful recommendations (items 1 and 2): 1)
- (2) Make presentations and discussions at CEQ meetings (ongoing) 2)
- (3) Write reports on selected topics
- (4) Assist in a Survey of the 7 Councilpersons, by the Commissioners who were appointed by those Councilpersons.

PRESENTATION: "NEW DIRECTIONS FOR RECREATION AND PARKS".

Speaker: Roslyn Johnson, Director of Recreation and Parks.

Introduction: Commissioner Carol Newill

Director Johnson was confirmed in March 2020 - the first woman to direct this department. She previously led innovative programs in Prince George's County; she worked for 17 years in Recreation and Parks departments with large budgets, a diverse workforce, and a focus on innovation and Community Outreach.

**RJ:** There has been a 224% increase in park use since the Pandemic, the largest increase in the State. Our \$12 million budget is the smallest per capita in the State, but we got \$2.6 million from Covid funds which were used for capital improvement for trails and outdoor facilities. We are excited about when we can add recycling to parks - it is high on our list. We are starting to increase community gardens and are scouting locations. One of our present goals is to help with food insecurity - we have served 2.5 -3 million meals at multiple locations (of the over 10 million meals served by the County). We are working with the University of Maryland on Community gardening for novices and how to turn this into an entrepreneurial opportunity. We are also working on the Oregon Ridge Master Plan - "we really want the community's

input". We were successful on the last bonds bill on the ballot, and got \$35 million from that. We are spending down the Open Space budget and are acquiring as much land as possible. Half our \$6 million budget is for acquisition, and half for development. We are looking to increase park acreage as well.

**Question:** In park acquisition, will you go back to urban areas or large-scale acquisition outside the URDL?

**RJ:** We are looking at park equity, OIT is doing GIS assessment of all our facilities and amenities - down to the number of trashcans and quality of park benches. We will assess the data and overlay it on top of population, household income, proximity to crime, and other factors. This will help in targeting for purchasing. For now, it is a matter of opportunity and appraisal value - we cannot pay more than 10% over the appraised value. We hear about properties in different ways. Sometimes it's surplus land, or families who don't want their land developed, or community members who recommend a site where a business or other entity is likely going away, staff members who come upon opportunities or available funds in the acquisitions budget - all these make a difference.

**Question:** How do you decide the way acquired lands will be used (e.g. ball fields vs natural areas)?

**RJ:** We have to balance needs and also how lands come to us. We may be looking for a place where a Recreation Council needs land and will provide funds towards the sale price. Some lands are purchased for community parks - there is no set formula. Sometimes a property is land-banked for future use. We try for the best deals but we have not traditionally been the best deal makers - I am pushing hard to change that. We are doing some very different things - at Northwest Regional Park we received a \$500K donation from the Ravens towards our first destination playground - a place families can spend many hours with all kinds of amenities. The \$850K playground requires no general funds due to donations and Program Open Space money. We also want to develop a complete master plan for our park inventory. The last one was in 1950 and is no longer useful as a guide. All new buildings will be built to LEED silver standards. There used to be a nature and environmental program Regional Coordinator, and we are looking to upgrade that position to a chief with a different skill set who will bring a sustainability perspective to our education programs. We want to push the envelope on how we carry out our sustainability objectives. We hope to encompass climate change risks.

**Question:** What about trash and property damage near parks due to increased usage?

**RJ:** Increased usage is across the board. We don't control trash; it's a function of Property Management. We lost much of our maintenance staff (due to Covid), so we work with DPW. We did purchase 200 new trashcans; we hope to have recycling bins next to them soon.

**Question:** Lack of trees in playgrounds and the need for shade structures were brought to your attention by Commissioner Newill - how do you see this situation?

**RJ:** We talked about this. Trees take time to mature; in the short term we need other options for shade. There are multiple challenges with planting, care and maintenance of trees, and we need to look holistically at our facilities. We don't always look at landscaping when building them and we have to look at changing this.

**Question:** What about pollinator gardens - are you working with EPS, what is planned going forward?

**RJ:** This is a national issue for us. We are working with Steve Lafferty, and are looking for no-mow areas and tractor attachments that can be used to plant native seeds. We have located areas to do this, and are looking for more locations.

**Discussion:** Updating of CEQ Reports in context of Climate Change Resiliency - Carol Newill, lead. We recommend all County Reports be updated to reflect the need for action on Climate Change Resiliency. A Councilmember asked for an update on the Salt Report. We need to hear first from Professor Joel Moore (Towson University) and remember the original report involved six people. We need a team to take this on. It was agreed we speak also with our Council members to assess their priorities in this area.

## ROAD SALT OVERVIEW AND RECOMMENDATIONS TO THE BALTIMORE COUNTY COUNCIL:

The Original (2009) Report and Future Changes.

At our February 24<sup>th</sup> Meeting, the Commission focused its attention on road salt issues. There was an overview of the original report, a presentation by Dr. Joel Moore, and a discussion on how to update the report to reflect Climate Change impacts.

### A. Introduction and Overview of Topic - Linda Davis

Commissioner Davis described the elements of the original report and the major recommendations: the County should seek to balance environmental and human health against the desire for bare roads in winter, and should promote sustainable road salt application practices. In light of our recent discussion of Climate Change consequences and potential for future unpredictable storm occurrences, it seems appropriate to revisit this topic and get an update on the state of the science.

### B. PRESENTATION: "EFFECTS OF ROAD SALT ON THE ENVIRONMENT"

Speaker: Dr. Joel Moore, Assistant Professor of Physics, Astronomy and Geosciences, Towson University.

**JM:** The CEQ Road Salt Report has been a helpful resource and was the cutting edge on this topic at the County level; eleven years later there is much movement at county and state levels all over the country. As a geochemist, I will primarily address the chemical aspects.

1. Conductivity: Stream sampling shows conductance from 700 - 1000 up to >15,000 micro Siemens/cm, about 1/3 the level in seawater.
2. Deicing Salts: NaCl most common. CaCl<sub>2</sub> and MgCl<sub>2</sub> are gentler on plants, but still add much chloride into streams. Trade-offs are costs and terrestrial vs aquatic organism impacts. Once dissolved, there is no way to remove it chemically. Hard water is well-buffered with higher calcium and alkalinity (e.g. Cockeysville marble); most other local rock types associated with softer water. From mid-1980s, rock salt use grew 40% faster than urban land cover.
3. Chloride Trends: Sodium at Montebello water treatment plant shows increasing levels; 2017 mean sodium concentration at or above human health advisories.
4. Impacts: Likely road salt will be seen as the major water pollutant of our generation as phosphorus was earlier. Vulnerable populations include Mayflies - populations decline as

chloride is added to stream with low conductivity. Deicing salts and agriculture show increasing conductivity over geologic background concentrations. Drinking water quality can be measured by the ratio of chloride to sulfate; ratio increases with urban development and water becomes more corrosive. Our water is naturally corrosive and becoming more so.

5. Slow pathways by which chloride moves into groundwater: Studies compare sites with and without upstream stormwater basins. Managed sites look similar in winter as chloride moves from pavement into streams. In summer, sites without stormwater basins have lower concentrations due to increased infiltration and chlorine shows up in streams later. Shifts in fish and invertebrate populations are seen with concentrations of ~100 mg/l. These are slow pathways.
6. High Frequency Data: We see trends with different Impervious Surface Cover (ISC) - where ISC is low, less-frequent grab samples from stream match up with well with trends seen in high-frequency data. Where there is more ISC you really need high-frequency sampling to capture the chloride spikes, and test against the EPA criteria for Urban areas. Above 10 - 15% ISC the median conductivity is above the threshold for extinction of sensitive species. The last 10 years of data suggest EPA criteria is probably too high and needs to be reduced, but this is regionally and ecosystem dependent. Urban environments seem to wipe out most macro-invertebrates; fish species are less easily impacted.
7. Addressing the issue: One solution is to use less salt. Maryland State Highway Administration worked to reduce its salt 30 - 50% over the last few years. One option - pre-wetting and pre-treating - can use 1/3 less salt. Liquid brining can use 45 - 50% less salt and can save on overtime. Wetted salt dissolves ice better. Since the 2009 CEQ report there have been improvements. MDE has put chloride-related items into MS4 permits including Salt Management plans and required high frequency monitoring in some cases. Once salt gets into groundwater, it can be months, years or decades to work itself out. We may have to learn to adjust expectations in seeking a balance between safety and the environmental costs of road salt.

C. DISCUSSION: Updating 2009 Report to Reflect Climate Change Impacts. Linda Davis - lead. SHA has made some major changes in how road salt application is managed. If we go forward, the next report will be a less heavy lift, as there is much more data and information and much work is taking place on this issue. What will happen with Climate Change? There may be fewer events but more extremes and variability. Brine being used now has lower salt concentrations and less is being used. A new report would be a shorter-term effort; tasks would be split up and we could confer on-line.

#### ROAD SALT REPORT UPDATE - Part II

At the March 24<sup>th</sup> CEQ meeting we continued our focus on Road Salt with another presentation and discussion.

PRESENTATION: "Current Baltimore County Practices and Issues" - Speaker: Anthony Russell, Jr. Chief, Bureau of Highways, DPW Baltimore County.

**AR:** Our first responsibility is to safeguard the public, but we are aware of environmental impacts and looking to the future. We are pretreating roads with brine. It takes 90 lbs of salt per lane mile as opposed to a regular salt truck using 500 lbs per lane mile and is also less costly. We can't do this everywhere yet - the network is too big. We use a uniform computer-controlled release with 40 trucks this year for locations outside the URDL to protect public water supply and wells. We also manage salt storage to avoid leakage, and no longer leave out salt piles just covered with tarps. The last two years have seen real

change. Although we have 147 trucks of our own, we bring contractors in on an hourly basis when we need them, tell them what we want regarding best practices in salt usage and have our crew chiefs follow up. We start computerized trucks outside the URDL and will work our way to inside the URDL. Computer systems are \$30K per truck, so we can't mandate them for contractors. School bus lanes and parking lots are generally handled by the Board of Education. They should be following the same procedures we do; our salt usage totals include salt applied by them.

#### DISCUSSION OF CLIMATE CHANGE AND RESILIENCY ISSUES RELATED TO ROAD SALT REPORT - Part II - Linda Davis, lead.

Chief Russell's 'on-the-ground' voice about changes over the last eleven years was very helpful. Improvements are likely limited by budget constraints. Many other alternatives in the northern Virginia document could be helpful here, but overall County progress in the last two years is impressive. We can discuss this with D'Andrea Walker when she comes next month. The State is also in a different place and MDE has different resources than in 2009. Our job would be easier and more focused due to these additional local, Maryland State and regional information sources.

#### TRANSITIONS AND CHANGES

At the April 28<sup>th</sup> meeting outgoing chair Lois Jacobs passed the Chair position to Dr. Brian Fath. Brian thanked Lois for her leadership as chair; also Linda Davis for her long service and exceptional research and editing skills. As primary lead on Road Salt issues (among others) her knowledge and leadership skills cannot be easily replaced. We can only hope she can be re-appointed at a later date. Introductions were made among Commissioners, guests, our new members, County officials and Liaisons. Our new member is Dr. Mahnaz Magheri Assadi, who was introduced by Dr. Carol Newill. Dr. Assadi is an at-large appointee of the County Executive who replaces Brian Bernstein in this position as he transfers to the Business/Industry position vacated by Rex Wright. She is a biotechnologist with 25 years as a university faculty member (JHU, Univ. of Baltimore, and CCBC). Brian Lindley, our EPS liaison and mentor, then updated the Commission on the County Executive's appointment changes under the new system. He is trying to diversify appointments; some terms will be shorter, but are intended to bring in new blood and fresh ideas. Samantha O'Neill is in charge of appointments through a new unified system where people can submit applications for appointments. Her office will coordinate with Board Liaisons and manage all Boards and Commissions through a similar system. We currently have one vacancy (of 15) from the Builder's Community. This position would be filled in July by Jennifer Langford. Also starting at the end of July was Justin Gallardo who replaced Linda Davis in her "at-large" position.

By Summer we had two resignations: Avery Harden, our District 6 representative (still not replaced) and the agricultural representative, S. Glenn Elseroad, our farmer-philosopher who shared his unique world view and understood the interface between environmental and agricultural issues as few others could. Their counsel and kindness will be deeply missed.

DEER HUNT: Brian Lindley EPS lead.



Surveys done in Nov-Dec have a goal of 15 - 20 deer per mi<sup>2</sup> which should get population densities back on track. Numbers were not as high as anticipated. The numbers differ in certain areas depending on the level of landscape development and amount of forage available.

**PRESENTATION: "AN OVERVIEW OF PUBLIC WORKS AND ITS IMPACT ON ENVIRONMENTAL ISSUES"**

Speaker: D'Andrea Walker, new Acting Director of DPW; with Sheldon Epstein, DPW Liaison to CEQ, and Tishaun Usiade, DPW.

Acting Director Walker was appointed to her position in November 2020 and was previously Deputy Director. DPW has over 900 employees; their functions include water, bridges, roads, sewers, garbage and trash collection, recycling and more - all of which impact the environment. During the next two years, the goal is to modernize and upgrade Baltimore County infrastructure.

**DW: Sanitary Sewer system:** This is the largest share of our capital budget - 3178 miles of sewer lines and 320 pumping stations carrying sewage to Back River and Patapsco treatment plants. Under a Federal Consent Decree, the County invested \$1.5B on replacement and upgrades. The goal is to end sewer overflows during heavy rains. Dealing with this means more than just construction; we also have to change our habits and educate the public about what fats, oils and grease do to our sewer system.

**Water:** The water capital program is \$211M, only slightly less than the \$218M for the sanitary sewer system. We need new water storage facilities on the County's East Side, and at Ashburton we are building two new 20-million gallon storage reservoirs. These replace aging open-water facilities and comply with EPA mandates to store drinking water under cover. We are also investing \$30M to replace degraded cast-iron mains that have lost capacity and are prone to breakage. We are doing a strategic focus on the renewal of aging pipes before they break.

**Roads:** Our County has almost 3000 miles of roads and conditions vary from excellent to marginal; there is \$24M in the capital budget for repaving. We are doing more repairs and resurfacing than new road construction. There is also a need to widen roads for increased traffic in some areas. These future projects come with curb and gutter improvements.

**Stormwater:** There is a growing need to channel stormwater to protect roads and houses from flooding. The Stoneleigh community in Towson is an example; a project there should be completed this fall. A new storm drain system is being installed.

**Bridges:** DPW is responsible for 689 bridges; some have been destroyed by floods. A bridge on Joppa Road that is more than 100 years old will be taken apart and rebuilt in stages. Bridges are inspected every two years under State supervision, and the budget covers both repairs and new construction.

**Transportation:** Traffic infrastructure and traffic control are critical. 40 signals are constructed and maintained by Public Works. Light fixtures and streetlights are part of the capital budget; they are being upgraded through an LED conversion initiative.

**Solid Waste:** An end-to-end study and overhaul was just completed. The final report of the work-group includes recommendations for improvements, upgrades and new initiatives - all within a framework of

climate change impacts and consideration. Topics include the private hauler system and landfill capacity. We are also focused on landfill water treatment to treat toxic landfill leachate before its release into the environment.

**Question:** With more extreme storms, stormwater getting into sewers, sea level rise threatening sewage treatment plants and similar problems, how will you think about Climate Change as decisions are made about sewage treatment and stormwater management?

**DW:** We think about climate impacts much more since Steve Lafferty came on board as Chief Sustainability Officer, and worked closely with him while he held that position. Sheldon Epstein also works closely with that office. The full report of Climate Action recommendations from Hazen Consultants will soon be on the County's website. Phase one involves climate impacts to County owned facilities and which are most at risk. Phase two looks at private properties with attention to increased rainfall predictions - how it will affect floodplains compared to today.

**Questions:** How can CEQ support your efforts?

**DW:** By speaking out in support of our Climate Action Plan to correct years of infrastructure not having been maintained at proper levels. Residents want us to fix flooding on private property, but we are responsible for public property and we have to prioritize safety and public health first. We also don't have the authority to do things that are part of Baltimore City's responsibility as owner of the water system.

**Questions:** Is there any current project on which you would like advisory input?

**DW:** Sheldon Epstein mentioned that DPW is trying to start a green infrastructure initiative to weigh proposals and assist in making decisions - maybe a sub-committee out of this group would be helpful.

#### MASTERPLAN UPDATE AND RELATED MATTERS

At the May 26th CEQ meeting (our last meeting before the summer break), new Planning Department Director, Steve Lafferty joined us for an overview of his office going forward. He emphasized the County Master Plan, which is the primary focus of the Planning Office at this time. His efforts in shaping, defining and getting the Sustainability Office up and running (as its first director) will no doubt be helpful in this new position. The CEQ is pleased that someone with long environmental experience will have the helm in developing the Master Plan. They are having meetings with community leaders and other stakeholders, incorporating the priorities of the County Executive, who dropped in (virtually) at this meeting to stress some of his concerns (equity, vibrant communities, and education, among others). As he is a strong environmental proponent, it will be interesting and important to see how climate change and related issues are handled in the new Master Plan.

#### PRESENTATION: "HOW BALTIMORE COUNTY CAN BE MORE RESILIENT AND ADAPTIVE IN THE FACE OF CLIMATE CHANGE"

Speaker: Jenn Aiossa, Chief Sustainability Officer for Baltimore County (September 22, 2021 CEQ meeting).

Jenn Aiossa is an ecologist by training, studied biogeochemistry in Virginia's salt marshes, and came to Maryland to apply scientific background to the policy arena for a member of Congress. She has been in

her current position since May. Prior to that she was Executive Director of Blue Water Baltimore. Priorities include following up on important initiatives started under Steve Lafferty.

Sustainability is one of the six pillars of Baltimore County's current strategic plan. Our office is conducting critical assessments of greenhouse gas emissions, vulnerabilities to climate change, how County operations are carried out, i.e. how we look at internal policies, programs and procedures through a climate resiliency lens and then make changes and/or improvements. An example is reducing our GHG emissions and reliance on fossil fuel -generated energy by transition of our County passenger vehicle fleet. Reducing emissions from our transportation sector is a high priority. The County has two purchase agreements, one for 43 million kwh of solar energy - 35% of baseline energy needs. The County Executive wants 100% baseline energy from renewable energy by the end of 2026.

We also do extensive methane capture at the Eastern Sanitary Landfill with three generating units feeding methane generated power into the grid. A fourth unit will come on-line at the end of 2022. We are putting roof-top solar on top of our largest facilities and a ground-based solar array on a County-owned unused parcel. DPWT (Dept. of Public Works and Transportation) welcomes these initiatives with special interest in mitigation of coastal flooding problems.

Data indicates warmer and wetter conditions in already flood-prone areas. Many older communities were built before modern stormwater drainage and are prone to repeated flooding. We are compiling data for hazard management and emergency planning. In the long term it provides justification to go to FEMA and leverage our limited resources to address these issues. We must also address adaptation as we are still on a pathway to sea-level rise, more high heat level days and flooding. We are also working with other local jurisdictions.

As for methane capture, our current solid waste manager is intrigued with the new anaerobic digester facility being built in Howard County and has arranged a tour for us to see how it works, what volumes it can handle, how emissions can be dealt with, among other details.

#### PRESENTATION: RENEWABLE ENERGY FROM BIOFUELS IN BALTIMORE COUNTY

Speakers: Mahnaz Assadi, Jenn Aiosa, Radu Zamfirache, Cory Daviau

Speaker: Mahnaz Assadi, CEQ Commissioner, Adjunct Faculty at the Johns Hopkins Whiting School of Engineering. She discussed the harvesting of methane in general, how it is done, with some attention to the methods of increasing yield, especially as related to the County's GHG Climate Action Plan. She provided a list of United Nations Sustainability Development Goals and related it to methane. 70% of methane emissions come from the 3 County landfills.

The second speaker, Sustainability Coordinator Jenn Aiosa, told us the County Executive wants 100% of baseline energy demands for County departments to be from non-fossil fuels by 2026. She discussed the "business-as-usual" scenario.

DPWT liaison, Radu Zamfirache reviewed the County's landfill bioreactor. "As part of the GHG (Greenhouse Gas) climate resilience plan, developed by ICF under the leadership of Mr. Lafferty,

Baltimore County looked at this strategy and found that we already do methane capture to a degree that exceeds the national average and are planning to expand on this track record eyeing to reach as much as 78% capture by 2030 at our active landfill (Eastern).”

<https://resources.baltimorecountymd.gov/Documents/Executive/sustainability/GHGcli%20actionplan.pdf> refer to page 33. For further discussion of pros and cons of methane utilization, see: [www.marylandmatters.org/2021/10/13/bge-will-be-the-first-utility-in-md-to-use-biogas-from-anaerobic-digesters](http://www.marylandmatters.org/2021/10/13/bge-will-be-the-first-utility-in-md-to-use-biogas-from-anaerobic-digesters).

Speaker: Cory Daviau, Engineer in Civil and Environmental Engineering, and Baltimore County DPWT Division Head, Engineering & Compliance for Solid Waste Facilities, presented information on the methane capture project that began in 1997 at Eastern Sanitary Landfill. A recent agreement with EPP (Energy Power Partners) Eastern Landfill Gas LLC continues the operation of 3 engines that burn the methane for electrical energy that Baltimore County purchases. Under consideration is a 4th engine. Current efficiency of collection is about 75%. Remainder is burned in a “flare”. Other gasses produced at the landfill include those from deterioration of plastics and include dioxin. Composting of vegetable matter produces mostly CO<sub>2</sub> that can be used for electrical energy production.

## COUNTY COUNCIL REFORESTATION RESOLUTION AND PROPOSAL

Brian Fath explained that the resolution had five sponsors and was approved by unanimous vote. It requests CEQ to provide findings and guidance regarding the adequacy of maintenance periods for afforestation and reforestation projects pursuant to Article 33, Title 6 of the County Code. It requires maintenance for three years but the intent of the law is that trees survive for longer. Many projects survive three years but fail before 10 years. Don Outen initiated a tour with some of the Council members and took them to sites with failed tree plantings. The Council further resolved that we should review the current state of practice for reforestation maintenance periods especially among other Maryland local jurisdictions that implement the Maryland Forest Conservation Act of 1991 (MFCA), and include the input of the development community.

There was a proposal to hold a panel on the questions raised, with 2-3 speakers at each of 2 meetings (1/26 and 2/23). Talks should be tightly constrained to 15-minutes with 15-20 additional minutes for discussion with both speakers. Speakers will be asked to provide the text of their talk, and the slides, for inclusion in the report. Report of the Symposium will include Intro, each of the presentations, and Conclusions.

Carol Newill came up with a draft plan including having a January meeting with two speakers – someone from DEPS on what the law is and how our County complies, and Don Outen who has already prepared a report on failed planting sites and how to improve tree survival. If we make a recommendation for a longer period of maintenance and include that in fees paid by private developers, we would need to hear more from DEPS. They may already be doing some of that. The DEPS presentation may be made by someone from the environmental impact review section as within DEPS they do most of the regulatory enforcement.

In the February meeting, we could have two speakers from environmental organizations: someone from Baltimore County Green Alliance to present info on 3 counties’ experience with challenges to the goals of the Maryland Forest Conservation Act (MFCA) and solutions those counties have developed (possibly Marsha McLaughlin who has experience as head of Howard County’s department of planning); and a member of Baltimore Green Space (possibly Katie Lauter) who could provide information on Baltimore City’s challenges and solutions. We also should invite someone from the Maryland Builders Association

and Carol is getting the name of their executive director and we could invite them to give us their suggestions about what they believe that Baltimore County ought to do. If we have to go to another jurisdiction we might talk to people in Montgomery County – they are very forward thinking and they are comparable in size to Baltimore County. Prince Georges County is also a possibility. Can we find someone on a national level to report best practices? We might consult with Don Outen for suggestions.

#### **METHANE CAPTURE FIELD TRIP**

There would be a Field trip to Eastern Sanitary Landfill on 12/4/21 to witness methane capture and utilization (Brian Fath). It would be an hour tour, and Mahnaz, Brian Fath, Karen, Valerie, and Carol indicated they would be able to attend. The trip would start at ~9:30 AM.

#### **CONTACT WITH CITIZENS**

Citizen concerns and enquiries came to CEQ via its website and/or to individual Commissioners. Requests were directed to the appropriate County Agencies. Frequent topics were trash disposal, recycling issues, flood damage, stream erosion, urban tree destruction and park related problems. Our Commission liaisons steered us toward the appropriate persons to deal with specific problems.

#### **CONTACT WITH COUNTY**

- Communicated virtually or by phone with Council members to update them on CEQ activities and concerns.
- Welcomed ongoing attendance, advice and support provided by our CEQ County Liaisons Brian Lindley (EPS), Kui Zhou (Planning) and Sheldon Epstein (DPW).
- Welcomed as guests: Roslyn Johnson, Director of Rec. and Parks; D'Andrea Walker (acting chief), Anthony Russell and Tishaun Usiade (Highways) and Cory Daviau (solid waste) of the Dept. of Public Works; Dr. Joel Moore of Towson University; Jenn Aiosa, Chief Sustainability Officer; and Steve Lafferty, Director of Baltimore County Planning Office.

#### **CEQ MEMBER CONCERNS**

The CEQ will continue to review environmental issues confronting the County, the Council and the Executive. Issues for future actions include:

- Climate change Adaptation and Resilience
- Urban and Forest Tree Canopies and Reforestation
- Recycling and Waste Reduction - including Food Waste Strategies
- Deer Management - other wildlife issues as appropriate
- Pesticides and Toxins

#### **APPENDIX A**

Summary of Councilmanic Interviews by CEQ  
Prepared by Lynda Eisenberg and Valerie Androutsopoulos  
December 1, 2021

Below is a by-district request for possible topics for science-based reporting and other recommendations that the CEQ can provide to the County Council to assist in their decision-making processes.

#### **District 1 – Tom Quirk**

CEQ Representative Valerie Androutsopoulos  
Increase Baltimore County tree canopy  
Convene Baltimore County environmental groups to discuss collaborative actions  
Support the closure of River Road for recreational opportunities (District 1 specific)

**District 2 – Izzy Patoka**

CEQ Representative Lois Jacobs  
Increase Baltimore County tree canopy and reforestation. A reforestation bill was introduced to the County Council  
Storm water flooding and how to lessen its impacts especially in urban areas  
Interest in NeighborSpace  
Impacts of deforestation on climate change.

**District 3 – Wade Kach**

CEQ Representative Chris Overcash

**District 4 - Julian Jones**

CEQ Representative Lynda Eisenberg  
Response from councilman: None at this time

**District 5 – David Marks**

CEQ Representative Carol Newill

Interested in 2 topics that pertain directly to the challenges of climate change:

1. Storm water management ponds. He asks if they can be designed better for our county and notes that designs have changed over the years. Creating the ponds is required by law, the ponds are installed by the property developers, and then the ponds are maintained by DEPS. How are such ponds designed elsewhere, how well does this storm water management tool work, and how can it be improved?  
DEPS and DPW will probably have ideas about this topic.
2. Forest Conservation laws. He asks in what ways can the laws be strengthened. Says many citizen groups have been providing input in this area, including Green Towson Alliance, NeighborSpace, Sierra Club, and others. My impression from our conversation is that pulling together the viewpoints and recommendations into one document could be a good resource for Councilman Marks and the Council, to strengthen the legislation here.

**District 6 – Cathy Bevins**

CEQ Representative Vacant; interviewed by Carol Newill  
Local ramifications of climate change and global warming.  
Specifics to minimize the negative effects on Baltimore County especially the very long waterfront of District 6, with risks of flooding etc;  
Flooding in inland neighborhoods related to the large amount of impervious surface with stormwater runoff into the creeks and streams; and the risks to fish and crabs which are an important resource.

**District 7- Todd Crandell**

CEQ Representative Karen Wynn  
Trash  
Midge bug problem (various causes and treatments)  
Sewage discharge

**General Topic:** DPW re the methane topic.