

**Department of Legislative Services**  
Maryland General Assembly  
2015 Session

**FISCAL AND POLICY NOTE**

Senate Bill 693 (Senator Benson, *et al.*)  
Education, Health, and Environmental Affairs

**Environment - Ambient Air Quality Control - Cumulative Air Impact Analysis**

This bill requires the Maryland Department of the Environment (MDE) to conduct a Cumulative Air Impact Analysis (CAIA) upon receipt of an application for an air quality permit to construct in a “protected community.” The bill specifies when a CAIA is required, the components of the CAIA, and the requirements for permit applicants. If MDE concludes, following a CAIA, that the proposed activity will have an impact, MDE is required to take specified actions on the permit, potentially including denial of the permit. The bill establishes a public participation process to accompany applications for air quality permits, and requires MDE and the Department of Health and Mental Hygiene (DHMH) to study the negative effects of cumulative impacts of pollution and other specified topics.

**Fiscal Summary**

**State Effect:** General/special fund expenditures increase by \$521,900 in FY 2016 (accounting for the bill’s effective date) and by more than \$660,000 annually thereafter, for MDE to hire additional staff, and general fund expenditures increase by \$173,300 in FY 2016 and by more than \$211,800 annually thereafter, for DHMH to hire additional staff to implement the bill’s permit review and study requirements. Special fund revenues increase for MDE to recover costs associated with the bill’s public participation requirements from permit applicants; revenues may also be affected to the extent that air permit fees increase for MDE to recover other costs under the bill.

(in dollars)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
SF Revenue	-	-	-	-	-
GF Expenditure	\$173,300	\$211,800	\$221,600	\$231,800	\$242,600
GF/SF Exp.	\$521,900	\$660,000	\$691,100	\$723,700	\$757,800
Net Effect	(\$695,200)	(\$871,800)	(\$912,700)	(\$955,500)	(\$1,000,400)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect

**Local Effect:** Local expenditures increase, potentially significantly, from the additional costs to obtain or renew air permits under the bill’s requirements. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Meaningful.

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## Analysis

### Bill Summary:

#### *CAIA Scope and Application*

The bill requires a CAIA for an “air quality permit to construct application” in a protected community. An “air quality permit to construct application” includes an application for a permit (including coverage under a general permit) to (1) construct a new source; (2) replace components of an existing permitted source, if the fixed capital cost of the replacement components exceeds one-half of the capital cost to construct a comparable new source; and (3) modify an existing permitted source by making a physical or operational change to the source that will result in a significant net increase in emissions of any pollutant from that source. An air quality permit to construct application also includes an application for a certificate of public convenience and necessity (generally associated with electricity generation facilities).

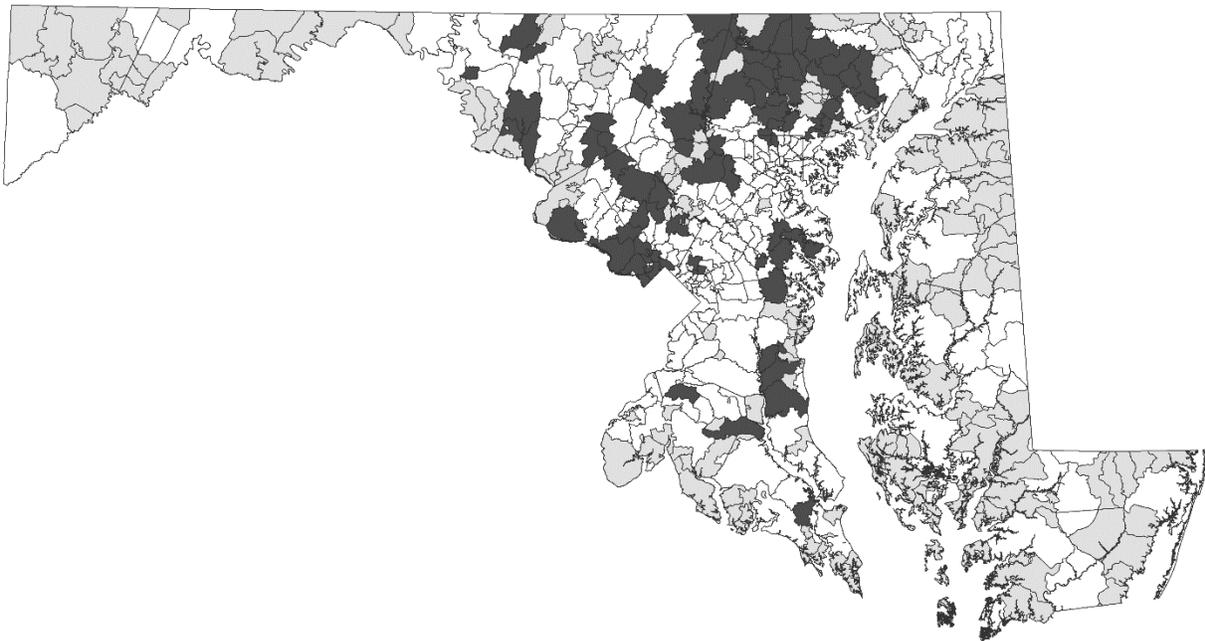
A “protected community” is defined as an area within a zip code that that has (1) an economic disadvantage, as demonstrated by either a Medicaid enrollment rate above the median value for all zip codes in the State or a Special Supplemental Food Program for Women, Infants, and Children participation rate above the median value for all zip codes in the State or (2) poor health outcomes, as demonstrated by either a life expectancy below the median value for all zip codes in the State, or a percentage of low birth weight infants above the median value for all zip codes in the State. Alternatively, an area can qualify as a protected community if MDE determines the area should be protected based on negative impacts of pollution and other stressors on the community.

**Exhibit 1** below shows zip codes that either (1) meet at least one of the criteria for designation as a protected community (white – no shading); (2) do not meet any of the criteria for designation as a protected community, but which may nevertheless be designated as a protected community at the discretion of MDE (dark shading); or (3) do not have sufficient data (from DHMH) to be designated (light shading). As shown in Exhibit 1, most of the land area in the State is within a zip code that is either designated as a protected community or that cannot be designated due to a current lack of data (but which are often adjacent to multiple zip codes that are designated as protected communities).

Only the zip codes represented by dark shading are known to not currently meet the designation as a protected community under the bill’s criteria. It should be noted that the bill’s definition of a protected community refers to “areas *within* a zip code” but also describes protected communities as (whole) zip codes. Thus, it is unclear whether parts of zip codes can be designated as protected communities, rather than the entire zip code. This fiscal and policy note assumes that only entire zip codes are designated as a protected community (or not); Exhibit 1 only shows entire zip codes.

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### **Exhibit 1 Zip Code Designations**



Note: Dark shading represents zip codes that do not meet the criteria established by the bill (are not likely to be designated as protected areas). Light shading represents zip codes with no data and no shading (white) represents zip codes that meet at least one of the criteria established by the bill for designation as a protected community.

Source: Department of Health and Mental Hygiene; Department of Legislative Services

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The bill specifies that the geographic scope of a CAIA conducted by MDE is as follows: (1) for a “nonmajor source” or “nonmajor modification,” property located within one-quarter mile of the property line of a school, a child care facility, an elderly care center, a community recreation center, or any other property that MDE determines could be negatively impacted by the new source or modification; or (2) for a “major source” or

“major modification,” on property located within one mile of the property line of one of these properties. If the application is for general permit coverage, MDE must require the applicant to apply for an individual permit.

### *CAIA Contents and Requirements*

For a *nonmajor source or modification*, MDE must (1) issue an air quality sampling plan to the applicant; (2) require the applicant to conduct six months of air quality sampling under the plan; (3) require the applicant to submit to MDE the sampling results and expected air pollutant loads from the proposed activity; (4) determine the air quality impacts of the expected emissions, including from any mobile source emissions; and (5) determine the potential health effects of any air quality impacts. If the pollutants of concern are particulate matter, nitrogen oxides, or volatile organic compounds, then air quality sampling must be performed for at least 12 months before the issuance of a tentative determination on a permit.

For a *major source or modification*, MDE must require an air quality sampling plan that requires sampling of any pollutant of concern, including for any pollutant with the potential to exceed the major source threshold set by MDE and the federal Clean Air Act. MDE must also require the applicant to model emissions from any mobile source associated with the proposed activity as part of the air impact analysis required under the Prevention of Significant Deterioration program under CAA and to implement the public participation requirements discussed further below.

If a source’s potential to emit exceeds major source thresholds for fine particulate matter, sulfur dioxide, nitrogen oxides, or volatile organic compounds, the bill requires air quality sampling to be performed for at least 12 consecutive months before the issuance by MDE of a tentative determination. An applicant may satisfy the air quality sampling by using sampling conducted by a different applicant under specified conditions.

### *Effect of CAIA on Permit Issuance and Conditions*

On completion of a CAIA, MDE must issue a report containing all data and conclusions relevant to the analysis, including whether the activity has “no impact,” “some impact,” or a “significant impact.”

For *nonmajor sources or modifications*, if MDE concludes that the proposed activity will have “some impact” on the immediate area, then MDE may only issue a permit requiring best available control technology for the expected air pollutants, as well as mitigation of the effects of any air pollution from mobile sources. For *major sources and modifications*, if MDE concludes that the proposed activity will have “some impact” on the immediate area, then the permit must include provisions that will mitigate the effects of mobile

pollution serving the source. If MDE concludes that the activity will have a “significant impact,” then MDE must either deny the permit application or issue a permit with terms that prohibit all expected air pollution from the proposed activity and mitigate pollution from the mobile sources serving the source. For applications for a CPCN, the requirements of this section must be incorporated into the recommended licensing conditions.

MDE must issue its CAIA report and conclusions as part of the tentative determination made on the permit. MDE must issue the tentative determination no later than 120 days after the applicant submits the air quality sampling results. When MDE issues a CAIA report with a tentative determination, DHMH must review the report and submit recommendations to MDE within the comment period on the tentative determination. DHMH may include recommendations related to any element of the report or the tentative determination, including the conclusions, permit terms, and analyses. If a final determination on the permit application is required, the final determination must address any recommendations submitted by DHMH.

### *Public Participation Process*

The public participation process for an air quality permit to construct application must include several requirements, in addition to the general public participation requirements required under current law. Under the bill, within 15 days after the determination that MDE must initiate a CAIA for an air quality to construct application, MDE must mail notice to all residents and property owners, including schools, health centers, and churches located within the immediate area, as well as elected officials who represent any portion of the immediate area. MDE must also post a notice that complies with specified existing statutory requirements at the proposed source location and at all public facilities within the immediate area. The notice must include (1) the date that the application was received; (2) the date, time, and location of the informational meeting required by the bill; (3) the relevant MDE website for the application; (4) phone and email contact information to which the public should address any questions or comments; and (5) instructions for submitting public comments. The bill defines “immediate area” as the area within a 1.5-mile radius of a major new or modified source, or within a three-quarter mile radius of a nonmajor new or modified source.

Within 30 days after providing this notice, MDE must hold an informational meeting within one mile of the immediate area if no venue is available within the immediate area. At the meeting, MDE must present information about the proposed activity and its potential impacts, the existing environmental and health conditions in the immediate area, the permitting and CAIA processes, and public participation opportunities. MDE must also provide an opportunity for any interested person to ask questions and comment on the proposed activity or the existing health and environmental conditions in the immediate area. MDE must allow 90 days after the meeting for an interested person to submit written

comments regarding the proposed activity or existing health and environmental conditions in the immediate area. MDE must consider and respond to all comments received at the meeting and during the comment period as part of the CAIA, and any comments received become part of the administrative record for the permit.

When MDE prepares a tentative determination for a permit to construct, in addition to existing statutory requirements, MDE must also provide notice to all residents and property owners, including schools, health centers, and churches located within the immediate area, as well as elected officials who represent any portion of the immediate area. MDE must also present the tentative determination and summarize the response to comments at a regular meeting of the Maryland Commission for Environmental Justice and Sustainable Communities, extend the public comment period by 90 days, and hold a public hearing within one mile of the immediate area if no venue is available within the immediate area. The notice of the tentative determination must include the relevant MDE website on which the tentative determination is posted and list the phone and email contact information for the person who can provide more information.

Any renewal of a permit to operate for a source located in a protected community is also subject to specified notice, comment, hearing, and judicial review requirements.

MDE may require a permit applicant to provide additional notice and opportunities for public input, and MDE must ensure that any notice, meeting, or hearing required under the bill is meaningfully accessible to individuals with limited English proficiency. The applicant must bear all costs incurred by MDE in carrying out the notice, informational meeting, and hearing requirements of the bill.

MDE must maintain on its website a list of air quality permit to construct applications and specified information related to the applications, including a fact sheet describing each proposal in plain language and status updates on the proposals, information regarding potential air pollution loads and monitoring results of proposals, and MDE's final report required by the bill. If MDE issues an air quality permit to construct, it must post annual emissions certification reports on its website within a reasonable period of time.

#### *Required MDE and DHMH Study*

By October 1, 2017, MDE and DHMH must identify factors that contribute to the negative effects of cumulative impacts of pollution and other stressors on a community, review the current state of science on cumulative impact analyses and environmental justice screening tools, and review Maryland health and demographic data at a zip code level. This report must be updated by the two departments every five years thereafter. MDE and DHMH must also collect emergency department data regarding asthma at the zip code level, and MDE must update this data annually and make it available to the public.

MDE may expand the geographic scope of a protected community by regulation, but may not define the scope so narrowly that a CAIA is not conducted anywhere in the State. MDE must develop a publicly available list of zip codes that qualify as a protected community and update the list annually.

**Current Law:** State air quality laws do not require cumulative impact assessments, but do require compliance with public notice and participation requirements.

Prior to permit issuance, MDE must comply with the general public participation requirements of Title 1 of the Environment Article, including holding a hearing in the county in which the source is to be located. These public participation provisions govern the timing and manner of providing required notice, the process for requesting and holding informational meetings, the requirement to prepare tentative and final determinations on permit applications, and the process for judicial review and exemptions from contested case hearings. The requirements of the public participation subtitle also include that:

- notice has to be published at least once a week for two consecutive weeks in a daily or weekly newspaper of general circulation in the geographical area in which the proposed facility is located;
- MDE may require notice of an informational meeting or a public hearing by mail to each person requesting the meeting or hearing or to their authorized representatives;
- MDE may provide additional notice by requiring the notice to be posted at the proposed facility or at public facilities in the geographical area of the proposed facility; and
- MDE must electronically post notice of the application on its website with specified information, including how interested persons request additional notice.

In addition, Chapters 500 and 501 of 2013 require MDE to ensure that notice is immediately provided to the governing body of each local government within one mile of the subject of the application, as well as each member of the General Assembly representing any part of a county located within one mile of the subject of the application.

Finally, a tentative determination must include (1) a proposal to issue or to not issue a permit; (2) proposed permit limitations and conditions; (3) a brief explanation of the tentative determination; and (4) any proposed schedule of compliance. If MDE's tentative determination is to issue the permit, it must include a draft of the permit made available to the public for inspection and copying. MDE must publish a notice of the tentative determination, which must allow 30 calendar days for public comment before the issuance

of a final determination. If a written request for a public hearing is made within 20 days of publication of a notice of the tentative determination, then MDE must schedule a public hearing.

“Air pollution” is defined as the presence in the outdoor atmosphere of any substance that is present in such quantities and is of such duration that it (1) may be predicted with reasonable certainty to be injurious to property or to human, plant, or animal life or (2) unreasonably interferes with the proper enjoyment of the property of others because of the emission of odors, solids, vapors, liquids, or gases.

**Background:** The hazards posed by the cumulative impacts of human activities or development have long been recognized in environmental law, most notably in the National Environmental Policy Act (NEPA), a federal law that requires federal agencies to consider the environment in all *major federal actions* and involves studying alternatives and evaluating various environmental impacts and mitigation measures. NEPA regulations define a cumulative impact as the impact on the *environment*, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. The definition specifies that cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

NEPA has been a model for similar legislation around the world and among several states. For example, the Maryland Environmental Policy Act, Chapter 702 of 1973, requires State agencies to prepare environmental effects reports for each proposed State action that significantly affects the quality of the environment. A “State action” is a request for legislative appropriations or other legislative actions that will alter the quality of the air, land, or water resources.

In addition to state laws modeled after NEPA, Minnesota has enacted a law, applicable in one county only, that prohibits the relevant permitting authority from issuing a permit without analyzing and considering the cumulative levels and effects of past and current environmental pollution from all sources on the environment and residents of the geographic area.

### **State Fiscal Effect:**

#### *Impact on MDE Air Permitting*

General/special fund expenditures increase by \$521,918 in fiscal 2016, which accounts for the bill’s October 1, 2015 effective date, and by more than \$660,016 annually for MDE to hire nine new professional and administrative staff to implement the bill’s numerous and extensive requirements.

As the bill establishes a new and distinct form of permit review and analysis in the form of the CAIA, MDE must hire one program administrator and one office secretary; these two positions are also primarily responsible for ensuring that the bill’s public participation requirements are met, including the extensive communications and outreach activities. To develop and oversee the required air sampling activities and ensure that the bill’s CAIA requirements are complied with, MDE advises that it must hire two natural resources planners, one meteorologist, and one statistician. To review the large number of permit renewal applications and oversee the public participation process for these applications, MDE must also hire two permit engineers. Finally, the extensive air quality modelling activities required by the bill necessitates the hiring of one meteorologist with modelling experience. In total, the nine additional staff are responsible for ensuring that all CAIA and public participation requirements of the bill are met, and there may be significant overlap in duties and functions among the staff.

This estimate assumes that about 50 air quality permits to construct may be affected by the bill on an annual basis, as well as roughly 20 permit renewals. While the actual number of permit applications affected by the bill may vary significantly from this estimate, the nature and magnitude of the additional work required by the bill likely requires MDE to hire *at least* the nine positions described above. This estimate reflects salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses.

New Positions	9
Salaries and Fringe Benefits	\$480,284
Start-up and Operating Expenses	<u>41,634</u>
<b>Total FY 2016 MDE Expenditures</b>	<b>\$521,918</b>

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses. The estimate does not account for ancillary costs associated with the bill’s public participation requirements, as those costs are required to be borne by the permit applicant.

The fiscal 2016 closing balance for the Maryland Clean Air Fund is projected to be less than \$300,000; thus, general funds are likely needed to cover the cost of implementing the bill unless and until any cost recovery and additional permit fee revenues become available, as discussed below.

*MDE Permit Fees and Cost Recovery*

MDE is required by statute to adopt regulations that set air permit fees in an amount necessary to cover reasonable costs for reviewing and acting on the permits. However, statute also requires MDE to consult with industry regarding the amount of these fees,

including a maximum fee amount, and restricts the permit fees for activities associated with MDE’s air permit program established by Title 2, Subtitle 4 of the Environment Article, whereas this bill establishes a new subtitle (although it applies to permits under Title 2, Subtitle 4). Thus, it is unclear whether MDE is authorized to increase permit fees to cover its costs under the bill, whether the fee may be set to fully offset the costs of implementing the bill, and when any regulations to increase permit fees are adopted. To the extent that MDE increases permit fees to fully recover the above estimated costs for implementing the bill, permit fees increase by about 6%, which is based on fiscal 2014 Maryland Clean Air Fund permit fee revenues (if the fee increase applies to only a subset of permits, then the increase on those fees is proportionately greater than 6%).

Additionally, the bill requires permit applicants to bear all costs associated with the public participation requirements. It is unclear whether this includes the cost of additional personnel hired to implement the bill or how any costs are to be recouped by MDE. Nevertheless, special fund revenues increase for MDE to recover some costs associated with public participation.

*DHMH Permit Review and Report Production*

The bill requires DHMH to review each CAIA report completed by MDE prior to the tentative determination on the permit. The bill also requires DHMH to identify negative effects of cumulative impacts on communities, review the current state of science on cumulative impacts, and review health and demographic data at a zip code level by October 1, 2017, and every five years thereafter. Thus, general fund expenditures increase by \$173,254 in fiscal 2016, which accounts for the bill’s October 1, 2015 effective date, and by more than \$211,802 annually, for DHMH to hire one program administrator, one administrative aide, and one epidemiologist to undertake these new duties. The epidemiologist is primarily responsible for analyzing CAIA reports, identifying the cumulative effects, integrating health data into the DHMH Public Health Tracking Project, and presenting statistical data, while the program administrator and administrative aide are primarily responsible for overseeing the delivery of five-year reports and outreach and analysis to identify protected communities. This estimate reflects salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses.

New Positions	3
Salaries and Fringe Benefits	\$149,083
Start-up and Operating Expenses	<u>24,171</u>
<b>Total FY 2016 DHMH Expenditures</b>	<b>\$173,254</b>

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

**Local Expenditures:** Local government expenditures increase as a result of the additional costs associated with obtaining air permits under the bill, as described further below. MDE advises that local governments are required to obtain air permits for various projects, including boilers and emergency generators.

**Small Business Effect:** Small businesses that own or operate (or design or install) projects that require an air quality permit to construct, and businesses that hold air permits requiring renewal, may incur significant additional costs to obtain or renew permits. The bill requires extensive air quality sampling and modelling work (depending in part on the project type, scope, and location) as well as significant new public participation requirements that must be undertaken by the applicant and MDE (any costs associated with the bill's public participation requirements undertaken by MDE must be borne by the applicant). It is unclear how many permits are held by (or will be sought by) small businesses.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** HB 987 (Delegate Lam, *et al.*) - Environment and Transportation.

**Information Source(s):** Maryland Department of the Environment, Department of Health and Mental Hygiene, Office of People's Counsel, Public Service Commission, Department of Legislative Services

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