PHED Committee #1
July 9, 2012

MEMORANDUM

July 5, 2012

TO: Planning, Housing, and Economic Development Committee

FROM: Jeff Zyontz, Legislative Attorney

SUBJECT: Zoning Text Amendment 12-07, Special Exceptions – Automobile Filling Station

Background

Zoning Text Amendment (ZTA) 12-07, sponsored by Councilmembers Elrich, Ervin, Navarro, Rice, and Riemer, was introduced on April 17, 2012.

ZTA 12-07 would add standards for the Board of Appeal's approval of new automobile filling stations (gas stations). A new gas station designed to dispense more than 3.6 million gallons of fuel per year would be allowed if it is located at least 1,000 feet from any public or private school or any park, playground or hospital, or other public use, or any use categorized as a cultural, entertainment and recreation use.[1] A gas station designed to dispense less than 3.6 million gallons a year would not have a minimum distance requirement from other land uses.

In addition, the ZTA would clarify that lighting from the site of a gas station could produce only .1 footcandle on adjacent residentially zoned property. Other changes in the provision would make the code more concise, precise, and decisive.

Planning Board and Planning Department Staff

In a memorandum dated June 15, 2012, the Planning Board could not come to a consensus recommendation on ZTA 12-07. Two members thought that the current special exception standards were adequate to address properties that could be impacted. Two members thought that it would be appropriate to have a 300 foot buffer from gas stations. Planning Staff did not recommend the approval of ZTA 12-07. In the opinion of Planning Staff, the current special exception standards offered sufficient protection.

Public Hearing

The Council conducted a public hearing on June 19, 2012. The proponents thought that it was needed legislation to protect neighborhoods from air pollution, exhaust from long car queues, and excessive truck deliveries that would occur for large gas stations. The opponents thought that ZTA 12-07 is unfair to the pending special exception applicant filed by Costco, would send a negative message to potential new

[1] Under §59-G-2.06(a)(2), a site near a vehicular or pedestrian entrance or crossing to a public or private school, park, playground or hospital, or other public use or place of public assembly, is given special consideration for traffic movements. ZTA 12-07 requires those land uses (with a clear definition of the places of public assembly affected) be a minimum distance from high volume filling stations.

businesses, is unsupported by scientific research on the health effects of emissions from the gas station, would prevent a large gas station on a regional mall where it is most appropriate, would deprive residents of cheap gasoline, and would interfere with the case-by-case analysis required in the special exception process.

Councilmember Leventhal asked for comments on the ZTA by DEP and HHS with regard to the health effects of the emissions from gas stations. He also asked if MDE had an opinion on the health effects of gas stations.

Executive

Staff was informed that the Executive will recommend disapproving ZTA 12-07. His comments are attached at © 47.

Issues

Does the Council believe that additional regulation on the location of gasoline filling stations is warranted?

Since 1953, all automobile filling stations (gas stations) in the County require the approval of a special exception.[2] In addition to other findings, the general conditions for any special exception require the Board of Appeals to find that the proposed use:

- will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

- will cause no objectionable noise, vibrations, *fumes*, odors, dust, illumination, glare, or physical activity at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

- will not adversely affect the *health*, safety, security, morals, or general welfare of residents, visitors, or workers in the area at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.[3] [Emphases added]

There are also requirements specific to a gas station. Under the specific standards, a gas station may be permitted upon an additional finding that the use will not constitute a *nuisance* because of noise, fumes, odors or physical activity in the location proposed.[4]

All special exceptions start with a presumption that the use is a compatible use.[5] The uses for which a special exception is required have some deleterious effects on surrounding uses or undeveloped land in the neighborhood and, therefore, are not appropriate to be allowed as uses of right. By making the use a special exception, the Council determined that this deleterious potential may not be so tangible in every case as to warrant prohibition of the use in the zone; rather, an applicant is given the opportunity to satisfy the Board of Appeals that such potential does not rise to the level of actual incompatibility in the applicant's case.

Every gas station includes fuels pumps, building(s) for employees, traffic from customers, potential queuing, signage, outdoor lighting, fumes from vehicles and gasoline, and underground storage. These are the inherent physical effects of all gas stations. Special exception applications may not be denied solely because of their

[2] Both the current general and specific gas station requirements necessary to approve a gas station are reproduced in the appendix to this memorandum.
[3] 59-G-1.21 (a) (5),(6), and (8).
[4] 59-G-2.06(a)(1).
[5] See Montgomery County v. Butler, 417 Md 271 (2010).

inherent effects.[6] Non-inherent effects, those specific to a particular location and operation, alone or in conjunction with inherent adverse effects, could be a sufficient basis to deny a special exception application.[7]

Although the Board of Appeals is required to make a finding that a special exception will not adversely affect health, the Executive Director to the Board of Appeals does not recall any testimony on this matter for gas station special exceptions that have gone to the Board of Appeals to date. To the extent that fumes from car exhaust or gas vapors were an issue, it was presented to the Board as a general nuisance rather than a health issue.

The general special exception standards allow for case-by-case evaluation of the health and nuisance effects of every gas station.[8] A case-by-case review, however, has not prevented previous Councils from requiring minimum setbacks or buffers, even when the use was subject to approval by special exception.[9] Absolute standards represent the Council judgment on the minimum requirements for the use. It is directive to the applicant. It avoids arguments about what is minimally appropriate being repeated every time the use is before the Board of appeals. It has the potential to avoid a contest of experts (to the extent that residents can afford experts).

If the Council believes that the current special exception standards are appropriate without amendment, then ZTA 12-07 should be disapproved, and there is no need to read the remainder of this memorandum.

Should different standards apply to uses based on the size of the use?

Testimony suggested that all gas stations should be treated the same without regard to size. The Zoning Ordinance already treats the same use at different sizes differently. Regional shopping centers are treated differently than smaller shopping centers. Department stores are treated differently than smaller variety stores. Subdivisions are treated differently based on the number of proposed units. Large daycare centers are treated differently than small daycare centers. The differences are due to the different characteristics of larger uses.

The gas station business changed in the early 1990's, when the super station or hypermarket first appeared on the scene. These stations are vastly different from the small town, low volume local gas station. Super stations are high volume, low profit margin creatures.[10] They are not just marginally bigger than the largest gas station

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[6] §59-G-1.2.1.

[7] Ibid.

[8] Board of Appeals records indicated that, of the 82 applications submitted for gas stations, 60 were approved; 22 gas station special exception applications were denied or withdrawn. The reason for the denials or withdrawals is identified on their database.

[9] Boarding houses must be 1,000 feet from other boarding houses; airstrips must be 1,000 feet from the property line; adult entertainment businesses must be 750 feet from places where the public gathers (schools, parks, places of worship, etc.); car washes and life care facilities must be 100 feet from a residential property line; animal boarding places must be 75 feet from residential property; abattoirs, grain elevators, milk plants, and wineries must be 75 feet from a property line.

[10] The Economics of Gasoline Retailing: Petroleum Distribution and Retailing Issues in the U.S. Andrew N. Kleit, PhD, Professor of Energy and Environmental Economics, Pennsylvania State University, December 2003:

> Hypermarkets and "super convenience stores" are non-traditional retail outlets that specialize in selling high volumes of gasoline at prices near the wholesale price of gasoline. In general, the retailing strategy for hypermarkets is to attract customers to their stores through a low price of gasoline and a large number of gasoline pumps, and then induce those customers to come inside their stores and buy other products. Firms in this category across the country include Wa-Wa and Sheetz (super-convenience stores) in the Northeast, Costco and Albertson's in the West, and Wal-Mart (the last three all hypermarkets) in various locations across the country. One industry source forecasts that hypermarkets will grow from their 2002 level of 13 percent of the industry to 16 percent in 2005. The rise of hypermarkets appears to have begun in the mid-1990s, as hypermarketers advanced the one-step shopping concept. At around that same time, federal regulations required refiners to change the environmental specifications of their "base" gasoline to a relatively uniform standard. This made the "base" gasoline sold by unbranded firms more competitive, and such firms were better able to provide product comparable to that sold in branded outlets. This, in turn, increased the ability of unbranded retail outlets to sell gasoline to consumers.

in the County; super stations can be 10 times the volume of a small station and more than 3 times the volume of the County's largest stations.[11] They are a growing segment of gasoline distribution in the nation. There are no such stations now in the County. Super stations can attract more cars and require more tank truck refueling operations than gas stations the County has experienced to date.

How should the size of a gas station be determined?

Different land uses in the County have different metrics to measure the activity expected by the use. The size of residential activity is most often measured in dwelling units. The size of commercial activity is measure in floor area. For the purpose of determining parking demand, the Zoning Ordinance uses the number of seats in houses of worship and restaurants.

Gasoline station "size" is a tricky concept. Gas stations can have minimal floor area, even though they create a great deal of activity. They are not currently measured by the size of the lot, the number of pumps, or anything else. Size is generally related to a level of activity. The standard for the measure of activity of a gas station is gallons pumped per year.

Planning Staff suggested using the number of gas pumps to judge the size, but the relationship between the number of pumps and the amount of gas pumped is not known to staff.

What size gas station should be regulated?

Currently, the Zoning Ordinance does not make any distinction between gas stations of any size. It allows the special exception process to sort through any issues associated with size on a case-by-case basis. Testimony suggested that making a size distinction is warranted based on the characteristics of larger gas stations. A representative from Free State (a relatively high volume retail gas distributor) submitted the following chart based on their own survey:

[11] Board of appeals records indicate that there are 60 gas stations in the County. Staff was informed by a gasoline retailer's representative that 95 percent of the gas stations in the County sell less than 2.5 million gallons per year. Only 7 stations in the County have ever pumped more than 3.6 million gallons per year. Super stations can easily pump more than 12 million gallons per year. According to the California Environmental Protection Agency's California Air Resources Board, 96 percent of gas stations in the country pump less than 2.4 million gallons a year. Of the remaining 4 percent, the average volume was 3.6 million gallons per year.

A Comparison of the Annual Gallons Sold Per Year for Various Types of Gas Stations[12]

	Branded Local Gas Stations	Non-Brand Value Gas Stations	High Volume Gas and Convenience Super Stores	Costco Wheaton	Hypermarkets or Mega Gas Stations
	(Exxon, Shell, BP -average)	(Free State)	(Wawa, Sheetz)		(Wal-Mart, Sam's Club, Costco – aver.)
Gallons per month	145,000	300,000	525,000	1,000,000	750,000
Gallons per year	1,740,000	3,600,000	6,300,000	12,000,000	9,000,000
Tanker Trucks per year (9,000 gal. per truck)	193	400	700	1,333	1,000
Number of Cars served per month (9 gallons per auto on average)	16,111	33,333	58,333	111,111	83,333
Autos per day	537	1,111	1,944	3,704	2,778
Hours Open per day	16	16	24	16	16
Autos per hour	34	69	122	309	174

The activity at hypermarket gas stations is very different from that at smaller gas stations. The increased activity is a rational basis to treat super gas stations differently.

What science exists on the health effects from gas station emissions?

Staff agrees with the general statement on existing scientific literature submitted in testimony that the "health effects of living near gasoline service stations are not well studied."[13] There are 3 studies identified by staff that seem to be marginally relevant:

> A 2004 French study showed an association between acute childhood leukemia and dwellings neighboring auto-repair garages and gas stations, which possibly expose children to benzene. The authors noted that these findings could be due to chance, despite the strength of the association and the duration trend. The authors suggested that their results be confirmed by further investigations.[14]

[12] Prepared by Berman Ventures for Freestate Petroleum, June 2012.
[13] Patrick N. Breysse, PhD, CIH, Professor, Johns Hopkins Bloomberg School of Public Health.
[14] Steffen C, Auclerc MF, Auvrignon A, Baruchel A, Kebaili K, Lambilliotte A, Leverger G, Sommelet D, Vilmer E, Hémon D, Clavel J, Acute childhood leukaemia and environmental exposure to potential sources of benzene and other hydrocarbons; a case-control study. Occup Environ Med. 2004 Sep;61(9):773-8 (2004).

A 2007 study from Greece concluded that gas stations have a significant contribution to ambient benzene concentrations in their vicinity. A risk assessment evaluation was attempted in terms of increased cancer risk due to the presence of a gas station in an area. The results showed an increase of the population risks in the vicinity, ranging from 3% to 21% in comparison to the population in the rest of the town.[15]

A Spanish research study in 2010 showed that a "minimum" distance of 50 meters should be maintained between gas stations and housing, and 100 meters for "especially vulnerable" facilities such as hospitals, health centers, schools and homes of elderly persons. Ideally, the 100 meter distance should be respected in plans for building new houses, in the opinion of one of the authors.[16]

These studies were conducted under the emission standards régimes of foreign governments. These studies do not relate their findings to the size of the gas station.[17]

In 2005, the California Environmental Protection Agency's California Air Resources Board recommended that local authorities "avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities." (These regulations inspired the screening standards in the EPA School Siting Guidelines.) The Agency found that the health risks increased with the volume of gas pump and decreased rapidly with distance.[18] The report also states that, to determine actual risk, a site specific analysis would be required.

The Environmental Protection Agency issued School Siting Guidelines in October 2011 that called for a detailed screening of sites that were within 1,000 feet of a large (3.6 million gallons or more per year) gas station. The guidelines were based upon a review of standards across the country, particularly California, and professional judgment. There is not a scientific study to say that 1,000 feet is a critical number above which impacts have not been detected. The guidelines state the screening distance is "intended to assist with the initial screening of candidate locations but is not a substitute for case and site specific evaluation of potential hazards."[19]

Staff concludes that there is a rational basis for treating gas stations pumping more than 3.6 million gallons per year differently from other stations.

What is the relationship between health effects and zoning regulations?

The source of all zoning authority is the power to protect the health, safety, and welfare of a community. Scientific measures of health have been used far less than the totality of the public welfare to justify zoning. The first zoning code in the country was adopted in New York City in 1916. In the City's opinion, towering skyscrapers on narrow streets were not in the public interest. When the City developed regulations to make certain that surrounding properties had access to light and air, there was no scientific study to determine how much light and how much air were needed. It was, in the City's opinion, a legislative finding that light and air promoted the general welfare of its residents. The New York City Council members did not know how much

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[15] Karakitsios SP, Delis VK, Kassamenos PA, Pilidis GA. Contribution to ambient benzene concentrations in the vicinity of petrol stations: estimation of the associated health risks. Atmospheric Environment 41(9):1889-1902 (2007).

[16] Morales Terres IM, Minarro MD, Ferradas GE, Caraena AB. Assessing impact of petrol stations on their immediate surroundings. Journal of Environmental Management 91:2754-2762 (2010).

[17] Staff credits Susan Mabie for doing web research in search of the scientific studies cited.

[18] A station pumping 3.6 million gallons of gas would create health problems for 10 out of a million people if they lived within 50 feet of the station. That number would rise to 25 out of a million if the station pumped 9 million gallons a year.

[19] School Siting Guidelines, EPA (2011), page 53.

light was required to avoid vitamin D deficiencies. They did not know how much air was required to avoid lung diseases. Scientific studies can be the foundation for regulatory changes, but they are not a requirement.[20]

The standard for regulation is that there must be a rational basis; the decision must not be arbitrary or capricious. There is no requirement that it must be based on a scientific study. There is broad legislative latitude on what is required to maintain and enhance public health. The basis of zoning regulation can be (and mostly is based on) the general welfare, which is a broader concept than health.

Do the state permitting requirements for gas stations remove the risk of health effects to people using neighboring properties?

Maryland's Air and Radiation Management Administration issues permits for gas stations. The permits are issued if the gas station employs the proper vapor recovery and gas leak monitoring systems. It is an equipment-based system to assure that the best technology available is being deployed. There is no absolute emission limit; the equipment required does not change with the size (amount of gas sold) at a station. Permits are issued without regard to land uses around the station or the proximity of those land uses. The Administration requires evidence that the proposed station complies with local zoning requirements. In all other respects, zoning is beyond their jurisdiction. The issuance of a permit does not mean that there are no health risks from gas vapors or idling cars. The Administration staff believes that health risks increase with higher concentrations of toxins and the duration of exposure.[21] They further observe that the concentration of airborne toxins decreases as the distance from the source of toxins increases.

What are the standards for the separation of gas stations in other jurisdictions?

The most stringent minimum distance standards concerning gas stations that staff could find are in Oakland, New Jersey. In that Bergen County Borough, the lot line of a gas station must be at least 400 feet from the lot of a public or private school, playground or athletic field, place of worship, hospital, library, theater, or fire station, and 1,000 feet from the lot line of any other gasoline service station.[22]

In Prince George's County, a gas station must be located at least 300 hundred feet from any lot on which a school, outdoor playground, library, or hospital is located, in addition to its review as a special exception.[23]

In the City of Gaithersburg, a gas station pump must be at least 100 feet from a residential building in the C-1 zone[24] but at least 300 from the entrance to a public or parochial school, playground, library, or hospital in the C-3 zone.[25]

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[20] If all zoning regulation must be related to scientific study, the author of this memorandum is prepared to retire.

[21] Conversation with Karen Irons, Air Management Administration staff, on July 3, 2012. Although Administration staff believes that a buffer around a gas station that expands with the size of a gas station is a good idea in general, they are not in a position to defend any particular distance requirement.

[22] Code of the Borough of Oakland, Land Use, Chapter 59.

[23] Prince George's County Zoning Ordinance, §27-358.

[24] Code – City of Gaithersburg §24-113.

[25] Op. cit., §24-134(a).

What minimum setbacks from large gas station should be required from sensitive land uses?

If the sole basis of determining a buffer is public health, then using the EPA screening guideline of 1,000 feet as a buffer area to places where children gather may seem excessive, but the Council may wish to err on the side of being more protective than less protective. The larger distance might be predicated on the fact that the County's understanding of health effects is not well known. One thousand feet is an extrapolation of the California standard (300 feet for a gas station that pumps 3.6 million gallons per year), adjusted for the possibility of a gas station that pumps 12 million gallons per year.[26]

Based on the California recommendations, the regulations of other jurisdictions, and other nuisance attributes of large gas stations, there is a rational basis for at least a 300 foot setback either from all residential buildings or from places children might gather. The general concept stated by Maryland Air Management Administration staff (the higher the concentration of toxins, the greater the distance that is warranted from those toxins) could lead the Council to conclude that the larger the station, the greater the buffer area, even beyond 300 feet.

The super station is a new entrant to the County marketplace. The Council could also find that traffic and queues associated with large gas stations impede the use and enjoyment of nearby properties, and a zone of exclusion larger than 300 feet is warranted.

Should any pending special exception applications be allowed to proceed under the rules that applied when the application was submitted?

As a matter of law, the rights of a land owner do not vest in Maryland until a project has footings in the ground constructed under a validly issued building permit.[27] Whenever the Council believes that the public interest is served by stopping a development before it gets to pouring footings in the ground, it can do so.

As introduced, ZTA 12-07 would not make any current large gas station a non-conforming use. The restrictions on location would only apply to new gas stations built after the effective date of the ZTA. It would apply to a pending special exception application for Costco.

Every landowner claims that any step (application or approved application) taken toward a building permit should warrant that their project be held harmless from any change in the regulation. The Council has not had one standard answer to these pleas for grandfathering. In some instances, all applications were allowed to use the rules in force at the time of application. In some cases, approved applications did not save a landowner from new rules.[28]

[26] 12 million = 3.33 times 3.6 million; 1,000 = 3.33 times 300.

[27] *County Council for Montgomery County v. District Land Corp.*, 274 Md. 691, (1975).

[28] ZTA 09-01, which deleted self-storage facilities from the list of permitted uses in the Sandy Spring Overlay zone, excluded a project with an approved preliminary plan. ZTA 09-05, which excluded self-storage from the Burtonsville Overlay zone, did have a grandfathering clause that allowed approved preliminary plans to proceed because of the applicant's expenditures after the approval of the preliminary plan. ZTA 10-15, concerning airstrips in agricultural zones, changed the rules for a pending special exception application.

APPENDIX - All general and specific standards for the approval of an automobile filling station (gas station) special exceptions.

59-G-1.2.1. Standard for evaluation.

A special exception must not be granted without the findings required by this Article. In making these findings, the Board of Appeals, Hearing Examiner, or District Council, as the case may be, must consider the inherent and non-inherent adverse effects of the use on nearby properties and the general neighborhood at the proposed location, irrespective of adverse effects the use might have if established elsewhere in the zone. Inherent adverse effects are the physical and operational characteristics necessarily associated with the particular use, regardless of its physical size or scale of operations. Inherent adverse effects alone are not a sufficient basis for denial of a special exception. Non-inherent adverse effects are physical and operational characteristics not necessarily associated with the particular use, or adverse effects created by unusual characteristics of the site. Non-inherent adverse effects, alone or in conjunction with inherent adverse effects, are a sufficient basis to deny a special exception.

59-G-1.21. General conditions.

(a) A special exception may be granted when the Board or the Hearing Examiner finds from a preponderance of the evidence of record that the proposed use:

(1) Is a permissible special exception in the zone.

(2) Complies with the standards and requirements set forth for the use in Division 59-G-2. The fact that a proposed use complies with all specific standards and requirements to grant a special exception does not create a presumption that the use is compatible with nearby properties and, in itself, is not sufficient to require a special exception to be granted.

(3) Will be consistent with the general plan for the physical development of the District, including any master plan adopted by the Commission. Any decision to grant or deny a special exception must be consistent with any recommendation in a master plan regarding the appropriateness of a special exception at a particular location. If the Planning Board or the Board's technical staff in its report on a special exception concludes that granting a particular special exception at a particular location would be inconsistent with the land use objectives of the applicable master plan, a decision to grant the special exception must include specific findings as to master plan consistency.

(4) Will be in harmony with the general character of the neighborhood, considering population density, design, scale, and bulk of any proposed new structures, intensity and character of activity, traffic and parking conditions, and number of similar uses.

(5) Will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

(6) Will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

(7) Will not, when evaluated in conjunction with existing and approved special exceptions in any neighboring one-family residential area, increase the number, intensity, or scope of special exception uses sufficiently to affect the area adversely or alter the predominantly residential nature of the area. Special exception uses that are consistent with the recommendations of a master plan do not alter the nature of an area.

(8) Will not adversely affect the health, safety, security, morals, or general welfare of residents, visitors, or workers in the area at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

(9) Will be served by adequate public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage, and other public facilities.

(A) If the special exception use requires approval of a preliminary plan of subdivision, the Planning Board must determine the adequacy of public facilities in its subdivision review. In that case, approval of a preliminary plan of subdivision must be a condition of granting the special exception.

(B) If the special exception:

(i) does not require approval of a new preliminary plan of subdivision; and

(ii) the determination of adequate public facilities for the site is not currently valid for an impact that is the same as or greater than the special exception's impact;

then the Board of Appeals or the Hearing Examiner must determine the adequacy of public facilities when it considers the special exception application. The Board of Appeals or the Hearing Examiner must consider whether the available public facilities and services will be adequate to serve the proposed development under the Growth Policy standards in effect when the application was submitted.

(C) With regard to public roads, the Board or the Hearing Examiner must further find that the proposed development will not reduce the safety of vehicular or pedestrian traffic.

(b) Nothing in this Article relieves an applicant from complying with all requirements to obtain a building permit or any other approval required by law. The Board's finding of any facts regarding public facilities does not bind any other agency or department which approves or licenses the project.

(c) The applicant for a special exception has the burden of proof to show that the proposed use satisfies all applicable general and specific standards under this Article. This burden includes the burden of going forward with the evidence, and the burden of persuasion on all questions of fact.

59-G-2.06. Automobile filling stations.

(a) An automobile filling station may be permitted, upon a finding, in addition to findings required in division 59-G-1, that:

(1) The use will not constitute a nuisance because of noise, fumes, odors or physical activity in the location proposed.

(2) The use at the proposed location will not create a traffic hazard or traffic nuisance because of its location in relation to similar uses, necessity of turning movements in relation to its access to public roads or intersections, or its location in relation to other buildings or proposed buildings on or near the site and the traffic pattern from such buildings, or by reason of its location near a vehicular or pedestrian entrance or crossing to a public or private school, park, playground or hospital, or other public use or place of public assembly.

(3) The use at the proposed location will not adversely affect nor retard the logical development of the general neighborhood or of the industrial or commercial zone in which the station is proposed, considering service required, population, character, density and number of similar uses.

(b) In addition, the following requirements must be complied with:

(1) When such use abuts a residential zone or institutional premises not recommended for reclassification to commercial or industrial zone on an adopted master plan and is not effectively screened by a natural terrain feature, the use shall be screened by a solid wall or a substantial, slightly, solid fence, not less than 5 feet in height, together with a 3-foot planting strip on the outside of such wall or fence, planted in shrubs and evergreens. Location, maintenance, vehicle sight distance provisions and advertising pertaining to screening shall be as provided for in article 59-E. Screening shall not be required on street frontage.

(2) Product displays, parked vehicles and other obstructions which adversely affect visibility at intersections or to station driveways are prohibited.

(3) Lighting is not to reflect or cause glare into any residential zone.

(4) When such use occupies a corner lot, the ingress or egress driveways shall be located at least 20 feet from the intersection of the front and side street lines of the lot as defined in section 59-A-2.1, and such driveways shall not exceed 30 feet in width; provided, that in areas where no master plan of highways has been adopted, the street line shall be considered to be at least 40 feet from the center line of any abutting street or highway.

(5) Each gasoline pump or other service appliance must be located on the lot at least 10 feet behind the building line; and all service, storage, or similar activities in connection with the use must be conducted entirely within the building. There must be at least 20 feet between driveways on each street, and each driveway must be perpendicular to the curb or street line.

(6) Light automobile repair work may be done at an automobile filling station; provided, that no major repairs, spray paint operation or body or fender repair is permitted.

(7) Vehicles shall not be parked so as to overhang the public right-of-way.

(8) In a C-1 zone, an automobile, light truck and light trailer rental, as defined in section 59-G-2.07, and in a C-2 zone, an automobile, truck and trailer rental lot, as defined in section 59-G-2.09, may be permitted as a part of the special exception, subject to the provisions set forth for such uses in this section. In addition, a car wash with up to 2 bays may be allowed as an accessory use as part of the special exception.

(9) In a Rural Village Overlay Zone the following additional standards apply for new development:

(A) Car wash is prohibited.

(B) Pump canopies must not exceed 35 feet in height.

(C) Any structure approved for the use must not exceed the scale and bulk of existing commercial structures in the village.

59-G-1.24. Neighborhood need.

In addition to the findings and requirements of Article 59-G, the following special exceptions may only be granted when the Board, the Hearing Examiner, or the District Council, as the case may be, finds from a preponderance of the evidence of record that a need exists for the proposed use to serve the population in the general neighborhood, considering the present availability of identical or similar uses to that neighborhood:

(1) Automobile filling station....

Zoning Text Amendment No.: 12-07
Concerning: Special Exceptions – Automobile Filling Station
Draft No. & Date: 1 – 4/10/12
Introduced: April 17, 2012
Public Hearing:
Adopted:
Effective:
Ordinance No.:

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT WITHIN MONTGOMERY COUNTY, MARYLAND

By: Councilmembers Elrich, Ervin, Navarro, and Rice

AN AMENDMENT to the Montgomery County Zoning Ordinance to:

- revise the special exception standards for the approval of an automobile filling station.

By adding the following sections of the Montgomery County Zoning Ordinance, Chapter 59 of the Montgomery County Code:

DIVISION 59-G-2. SPECIAL EXCEPTIONS—STANDARDS AND REQUIREMENTS.
Section 59-G-2.06. Automobile filling station.

EXPLANATION:	***Boldface*** *indicates a Heading or a defined term.* <u>*Underlining*</u> *indicates text that is added to existing law by the original text amendment.* *[Single boldface brackets] indicate text that is deleted from existing law by original text amendment.* <u>*Double underlining*</u> *indicates text that is added to the text amendment by amendment.* *[[Double boldface brackets]] indicate text that is deleted from the text amendment by amendment.* * * * *indicates existing law unaffected by the text amendment.*

ORDINANCE

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following ordinance:

Sec. 1. DIVISION 59-G- 2 is amended as follows:

DIVISION 59-G-2. SPECIAL EXCEPTIONS—STANDARDS AND REQUIREMENTS

* * *

Sec. 59-G-2.06. Automobile filling stations.

(a) In addition to findings required in division 59-G-1, [An] an automobile filling station may be permitted[, upon a finding , in addition to findings required in division 59-G-1,] if the Board of Appeals finds that:

(1) [The] the use will not constitute a nuisance because of noise, fumes, odors, or physical activity in the location proposed[.];

(2) [The] the use at the proposed location will not create a traffic hazard or traffic nuisance because of its location in relation to similar uses, necessity of turning movements in relation to its access to public roads or intersections, or its location in relation to other buildings or proposed buildings on or near the site and the traffic pattern from such buildings, or by reason of its location near a vehicular or pedestrian entrance or crossing to a public or private school, park, playground, or hospital, or other public use or place of public assembly[.]; and

(3) [The] the use at the proposed location will not adversely affect nor retard the logical development of the general neighborhood or of the industrial or commercial zone in which the station is proposed, considering service required, population, character, density, and number of similar uses.

(b) In addition, the following requirements must be [complied with] satisfied:

(1) After {effective date}, a new automobile filling station designed to dispense more than 3.6 million gallons per year must be located at least 1,000 feet from any public or private school or any park,

playground, or hospital, or other public use, or any use categorized as a cultural, entertainment and recreation use.

[(1)](2) When such use abuts a residential zone or institutional premises not recommended for reclassification to commercial or industrial zone on an adopted master plan and is not effectively screened by a natural terrain feature, the use [shall] must be screened by a solid wall or a substantial, [sightly,] solid fence, not less than 5 feet in height, together with a 3-foot planting strip on the outside of such wall or fence, planted in shrubs and evergreens. Location, maintenance, vehicle sight distance provisions, and advertising pertaining to screening [shall be as provided for in article] must satisfy Article 59-E. Screening [shall] must not be required on street frontage.

[(2)](3) Product displays, parked vehicles, and other obstructions [which] that adversely affect visibility at intersections or to station driveways are prohibited.

[(3)](4) Lighting [is] must not [to] reflect or cause glare into any residential zone. Lighting levels along the side and rear lot lines adjacent to a residential zone must not exceed 0.1 footcandles.

[(4)](5) When such use occupies a corner lot, the ingress or egress driveways [shall] must be located at least 20 feet from the intersection of the front and side street lines of the lot as defined in [section] Section 59-A-2.1, and such driveways [shall] must not exceed 30 feet in width[; provided, that in areas where no master plan of highways has been adopted, the street line shall be considered to be at least 40 feet from the center line of any abutting street or highway].

[(5)](6) Each gasoline pump or other service appliance must be located on the lot at least 10 feet behind the building line; and all service,

storage, or similar activities in connection with the use must be conducted entirely within the building. There must be at least 20 feet between driveways on each street, and each driveway must be perpendicular to the curb or street line.

[(6)](7) Light automobile repair work may be done at an automobile filling station[; provided, that no] but major repairs, spray paint operation or body [or] and fender repair [is permitted] are prohibited uses.

[(7)](8) Vehicles [shall not] must be parked [so as to overhang] completely off of the public right-of-way.

[(8)](9) In a C-1 zone, an automobile, light truck, and light trailer rental, as defined in [section] Section 59-G-2.07, and in a C-2 zone, an automobile, truck, and trailer rental lot, as defined in [section] Section 59-G-2.09, may be permitted as a part of the special exception[, subject to the provisions set forth for such uses in] if the requirements of this section are satisfied. In addition, a car wash with up to 2 bays may be allowed as an accessory use as part of the special exception.

[(9)](10) In a Rural Village Overlay Zone, the following additional standards apply for new development:

(A) Car wash is prohibited.

(B) Pump canopies must not exceed 35 feet in height.

(C) Any structure approved for the use must not exceed the scale and bulk of existing commercial structures in the village.

Sec. 2. Effective date. This ordinance becomes effective 20 days after the date of Council adoption.

This is a correct copy of Council action.

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Linda M. Lauer, Clerk of the Council

MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

OFFICE OF THE CHAIR

MONTGOMERY COUNTY PLANNING BOARD

The Maryland-National Capital Park and Planning Commission

June 15, 2012

TO: The County Council for Montgomery County, Maryland, sitting as the District Council for the Maryland-Washington Regional District in Montgomery County, Maryland

FROM: Montgomery County Planning Board

SUBJECT: Zoning Text Amendment No. 12-07

BOARD RECOMMENDATION

The Montgomery County Planning Board of The Maryland-National Capital Park and Planning Commission reviewed Zoning Text Amendment No. 12-07 at our regular meeting on June 7, 2012. After an extensive discussion and public hearing, a majority of the Planning Board could not come to a consensus recommendation on the text amendment. Commissioners Dreyfuss and Presley supported staff's position and recommended that the ZTA be denied for two reasons: that the existing special exception process provides adequate standards and requirements to address issues that potentially could impact properties near a proposed gas station and that the public input requirement of the special exception process provides opportunity to address concerns unique to a particular site. They further opined that any necessary changes to the current structure for reviewing and approving gas station requests should be made in the land use tables, not as part of the Special Exception standards. They were not convinced that a ZTA was needed at this time, mainly based on the concern that they did not yet have enough evidence about the health effects of gas stations or how those effects might vary based on the size of the station.

Chair Carrier and Commissioner Anderson believe that it is appropriate to recommend changes that would establish a buffer zone from certain outdoor uses for all gas stations, with Chair Carrier suggesting that 300 feet might be appropriate. The rationale was based on potential health effects and, more generally, the overall inherent adverse effects of gas stations, particularly if the industry moves further away from the traditional, small neighborhood gas station model towards larger stations. In their view, the special exception process does not

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effectively regulate gas stations near sensitive uses because a denial cannot be based solely on inherent adverse effects. Commissioner Anderson also suggested a provision barring some or all new gas stations within the "walkshed" of a Metro station on the basis that smart growth, transit-oriented development would make better use of this land.

ZTA 12-07 was introduced to revise the special exception standards for the approval of an automobile filling station by requiring any new automobile filling station designed to dispense more than 3.6 million gallons per year to be located at least 1,000 feet from any public or private school or any park, playground, or hospital, or other public use, or any use categorized as a cultural, entertainment and recreation use. The ZTA also recommends a specific lighting requirement that mirrors that of special exception proposals located in residential zones.

CERTIFICATION

This is to certify that the attached report is a true and correct copy of the technical staff report and the foregoing are the recommendations provided by the members of the Montgomery County Planning Board of The Maryland-National Capital Park and Planning Commission, at its regular meeting held in Silver Spring, Maryland, on Thursday, June 7, 2012.

Françoise M. Carrier
Chair

FC/GR/kr

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item No. 7
Date: 06-07-12

Zoning Text Amendment (ZTA) No. 12-07, Special Exceptions – Automobile Filling Station

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Completed: 05/31/12

Description

ZTA 12-07 revises the special exception standards for the approval of an automobile filling station by requiring that any new automobile filling station designed to dispense more than 3.6 million gallons per year to be located at least 1,000 feet from any public or private school or any park, playground, or hospital, or other public use, or any use categorized as a cultural, entertainment and recreation use. The ZTA also recommends a specific lighting requirement that mirrors that of special exception proposals located in residential zones.

Summary

Staff does not recommend approval of ZTA 12-07. The existing special exception process provides adequate standards and requirements to address issues that potentially could impact properties near a proposed gas station. The public input requirement of the special exception process further provides opportunity to address concerns unique to a particular site.

If the County Council decides to approve ZTA 12-07, staff recommends that the Council:

- Define large gas stations by establishing a maximum number of pumps versus the "gallons per year" gauge as depicted in the ZTA
- Establish a distance separation of 300 feet from the impacted uses versus the 1,000 feet requirement as proposed.
- Decide from where the distance is measured--from the fence line, special exception area, pump islands, or canopy. Staff recommends that the measurement be taken from the canopy.
- Delete the phrase *"or any use categorized as a cultural, entertainment and recreation use"* (as it pertains to requiring a 1,000 foot distance from a gas station) under Section 59-G-2.06(b). The inclusion of this phrase unnecessarily broadens the scope of the distance separation from certain uses in the land use table such as indoor theatres, indoor rifle or pistol ranges and private clubs and service organizations-some of which also require special exception approval.

Currently, an automobile filling station is allowed in the C-1, C-2, C-3, C-4 and C-6 Commercial zones, a number of industrial zones (I-1, I-2, I-4 and LSC zones), most CBD zones, the TS-M, MXTC, TOMX 2 and CR zones only through approval of a special exception application by the Board of Appeals. For the underlying C-1 and C-2 zones in the Takoma Park/East Silver Spring Commercial Revitalization Overlay Zone, the use is allowed by special exception only if it does not adjoin or confront land in a residential zone. Approval of ZTA 12-07 would impact the application of any proposed new automobile filling station in any of these zones.

Analysis

Special Exception Provisions

Inherent/Non-inherent Effects

The standard of evaluation for a special exception requires consideration of the inherent and non-inherent adverse effects on the nearby properties and general neighborhood where the use is proposed. Inherent adverse effects are the harmful effects caused by the physical and operational characteristics necessarily associated with the particular use irrespective of the size or scale of operations. Non-inherent adverse effects are any harmful effects caused by physical and operational characteristics not necessarily inherently associated with the particular special exception use, or adverse effects created by unusual characteristics of the site.

Any analysis of inherent and non-inherent adverse effects must first establish what physical and operational characteristics are necessarily associated with a particular special exception use. As established by previous automobile filling station cases, the inherent physical and operational characteristics necessarily associated with an automobile filling station include: (1) fuel pumps; (2) a structure providing storage space and shelter for employees; (3) traffic generated by customers, employees, and fuel delivery trucks; (4) potential for queuing vehicles on site; (5) noise associated with the use; (6) signage advertising gas products and prices; (7) outdoor lighting; (8) longer hours of operation than the average business establishment; (9) environmental impacts that may include fumes from idling vehicles and potential spillage of automobile fluids; and (10) underground fuel storage tanks.

Any adverse effects of a proposed automobile filling station that result from the above ten characteristics are considered inherent adverse effects. Alone, inherent adverse effects are not sufficient to constitute a denial. On the other hand, adverse effects that are not characteristic of an automobile filling station use, or inherent effects that are exacerbated due to distinctive site characteristics, are considered non-inherent adverse effects, which may be sufficient to result in the denial of the special exception application.

General Conditions of Approval for Special Exceptions/Specific SE Standards and Requirements

An applicant for a special exception must demonstrate that the general and specific standards and requirements are satisfied. These standards include: minimum setback requirements for gas pumps and queuing of vehicles; maintaining harmony with the general character of the adjacent neighborhoods through consideration of design, scale and bulk of any proposed new structures, intensity and character of activity, traffic and parking conditions; and establishing abatement measures to minimize or eliminate

objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity at the subject site. When an automobile filling station abuts a residential zone or institutional premises not recommended for reclassification to commercial or industrial zone in an adopted master plan and is not effectively screened by a natural terrain feature, additional screening measures are required.

The special exception process also helps mitigate impacts concerning building/gas pump location and overall site design *on a case by case basis*; a process particularly paramount when an automobile filling station is proposed in the vicinity of residential property.

Neighborhood Need

Under § 59-G-1.24, in addition to the findings and requirements of Article 59-G, an automobile filling station may only be granted when the Board, the Hearing Examiner, or the District Council, as the case may be, finds from a preponderance of the evidence of record that a need exists for the proposed use to serve the population in the general neighborhood, considering the present availability of identical or similar uses to that neighborhood.

Overall, staff believes that the existing special exception review process provides the site by site analysis provisions and public review opportunities necessary to address the appropriateness of permitting an automobile filling station at a proposed location.

Specific ZTA Language as Proposed

Under Section 59-G-2.06(b) the following language is proposed:

(b) In addition, the following requirements must be [complied with] satisfied:

(1) After [effective date], a new automobile filling station designed to dispense more than 3.6 million gallons per year must be located at least 1,000 feet from any public or private school or any park, playground, or hospital, or other public use, or any use categorized as a cultural, entertainment and recreation use.

The 3.6 million gallons per year figure stems from the Environmental Protection Agency's (EPA) School Siting Guidelines (Guidelines) and the 2005 California Air Resources Board's (CARB) report "Air Quality and Land Use Handbook: A Community Health Prospective." Both the Guidelines and CARB report define a "large gasoline dispensing facility" as a facility with a throughput of 3.6 million gallons per year or greater. The CARB report also recommends avoiding the siting of new sensitive land uses within 300-feet of a large gasoline dispensing facility. Sensitive land uses include: residences (e.g., houses, apartments, and senior living), schools, day care centers, playgrounds and medical facilities (e.g., hospitals, convalescent homes, and health clinics).

The 1,000 feet distance proposed in the ZTA is premised on the Environmental Protection Agency's (EPA) School Siting Guidelines. The purpose of the guidelines is to recommend that if a school is considering locating within 1,000 feet of certain uses, environmental screening should be done to assess the risks associated with the location. The Guidelines state repeatedly that they are not intended as a

ban on certain uses within a specified distance of a school but rather as a screening tool. Once an environmental assessment has been conducted, if no environmental concern exists, the school may proceed at the given location.

Conclusion

Staff does not recommend approval of the approach of this ZTA and therefore recommends denial of ZTA 12-07. The existing special exception process provides adequate standards and requirements to address issues that potentially could impact properties near a proposed gas station. The public input requirement of the special exception process further provides opportunity to address concerns unique to a particular site.

Staff does not believe that use of a blanket dispensing measure of "gallons per year" is the right approach when analyzing a special exception for an automobile filling station. If the County Council decides to approve ZTA 12-07, staff recommends that "large gasoline dispensing facilities" be captured by defining a maximum number of pumps associated with the facility. This standard would be simpler to enforce and would not necessitate negotiation about what a station is designed to dispense.

Staff further believes that a distance separation of 1,000 feet from the impacted uses proposed in the ZTA is too large. If the County Council decides to approve ZTA 12-07, staff recommends that the minimum distance be reduced to 300 feet based on the recommendation of the CARB report. The County Council should also decide from where the distance is measured--from the fence line, special exception area, pump islands, or canopy. Staff recommends that the measurement be taken from the canopy. Under Section 59-G-2.06(b), staff also recommends deletion of the phrase *"or any use categorized as a cultural, entertainment and recreation use"* (as it pertains to requiring a 1000 foot distance from a gas station). The inclusion of this phrase unnecessarily broadens the scope of the distance separation from uses in the land use table such as indoor theatres, indoor rifle or pistol ranges and private clubs and service organizations-some of which also require special exception approval. Attachment 3 depicts land use parcel designations and places of interest that typically fit the categories as stated in the ZTA that are located within 300 feet and 1,000 feet of existing gas stations in the County.

GR/MD/kr

ATTACHMENTS

1. ZTA 12-07 as introduced
2. Tables and Excerpts from the EPA School Siting Guidelines & the 2005 California Air Resources Board's (CARB) report "Air Quality and Land Use Handbook: A Community Health Prospective"
3. GIS Info on Parcels and land uses located within 300 feet & 1000 feet of a gas station in Montgomery County

Exhibit 6: Screening Potential Environmental, Public Health and Safety Hazards

IMPORTANT: This table is intended to assist with the initial screening of candidate locations but is NOT a substitute for case- and site-specific evaluation of potential risks and hazards. It is intended to be used in conjunction with the example Environmental Review Process (see Section 5) and Evaluating Impacts of Nearby Sources of Air Pollution (see Section 6). For more information on typical environmental hazards that may be encountered during the school siting process, see the Quick Guide to Environmental Issues in Section 8). Existing applicable federal, state, tribal or local statutes, ordinances, codes or regulations take precedence over the recommendations contained in this table. Users should check with state, tribal and local authorities for applicable requirements or other recommendations.

Feature/Land Use	*Description*	*Potential Hazard(s)*	*Recommendations*		*Additional Information*[51]
			Screening Perimeter	*Evaluation*	
Onsite buildings or structures (including all leased space)	▪ All onsite or adjacent buildings/structures slated for reuse, renovation or demolition.	▪ Legacy contaminants in existing structures including lead and other heavy metals, asbestos, PCBs, vapor intrusion/(VOCs), mold, radon, pesticides, pests ▪ For existing school buildings, chemicals from laboratory, art, shop, drama, maintenance, cleaning, grounds ▪ Structure may not meet current building codes (e.g., for seismic activity)	▪ All onsite structures slated for demolition, reuse or renovation	▪ Evaluate for the presence of hazardous materials or conditions. Age, location, condition and type of structure, and the history of use are critical factors to consider in assessing potential risks. Identify all potential hazards and remediate as appropriate.	▪ *Lead* ▪ *Heavy Metals* ▪ *Asbestos* ▪ PCBs ▪ *Vapor Intrusion/ (VOCs)* ▪ *Mold* ▪ *Radon* ▪ *Mercury* ▪ *Pesticides* ▪ *Air Pollution* ▪ *Risk Assessment*

[51] See the Resources page of the guidelines website for links related to the topics listed under the 'Additional Information.' (www.epa.gov/schools/siting/resources)

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Feature/Land Use	Description	Potential Hazard(s)	Recommendations		Additional Information[51]
			Screening Perimeter	Evaluation	
[illegible]	• High-traffic roads or roads with heavy diesel truck traffic.	• Air pollution • Noise • Accidental releases/spills of hazardous chemicals • Pedestrian and bike safety	• Identify and evaluate all high-traffic roads and highways within ~½ mile • Roads farther away with a high likelihood of accidental releases should also be considered	• In general, air pollutant concentrations will be highest closer to the source, decreasing with distance from the road. Many factors affect the magnitude and extent of impacts, so the potential variables and mitigation options described in Exhibit 5 should be evaluated. Consider additional mitigation strategies for locations near high-traffic roads. Also, consider potential adverse consequences related to inability of students to walk/bike to school, etc.	• *Roads* • *Air Pollution* • *Noise* • *Risk Assessment* • *Water*
Distribution centers, bus terminals, bus garages and truck-stops	• Facilities with more than 100 trucks/buses per day, or more than 40 refrigerated trucks per day.	• Air pollution, including diesel emissions • Soil contamination • Ground water contamination • Surface water contamination • Vapor intrusion • Heavy truck or bus traffic	• Identify and evaluate all major distribution centers within ~½ mile • Centers farther away with a high likelihood of accidental releases should also be considered	• Evaluate on a case- and site-specific basis. See Exhibit 5 for potential variables and mitigation options.	• *Risk Assessment* • *Maps and Mapping* • *Vapor Intrusion/ (VOCs)*

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Feature/Land Use	Description	Potential Hazard(s)	Recommendations		Additional Information[51]
			Screening Perimeter	Evaluation	
Gas stations and other fuel dispensing facilities	• Large gas station dispense more than 3.6 million gallons per year.	• Air pollution • Soil contamination • Ground water contamination • Vapor intrusion into structures • Heavy vehicular traffic	• Identify and evaluate gas stations and other fuel dispensing facilities within ~1,000 feet of prospective school locations • Applies to both onsite as well as adjacent or nearby locations	• Evaluate on a case- and site-specific basis. See Exhibit 5 for potential variables and mitigation options. • Consult with state, tribal and local authorities for applicable requirements. • Evaluate for spills, leaking underground storage tanks, potential air emissions.	• *Air Pollution* • *Risk Assessment* • *Maps and Mapping* • *Underground Storage Tanks* • *Vapor Intrusion/ (VOCs)*
Dry cleaners	• Facilities using perchloroethylene or similarly toxic chemicals.	• Air pollution • Soil contamination • Ground water contamination • Vapor intrusion into structures	• Identify and evaluate dry cleaning operations within ~1,000 feet of prospective school locations • Applies to both onsite as well as adjacent or nearby locations	• Evaluate on a case- and site-specific basis. See Exhibit 5 for potential variables and mitigation options. • Consult with state, tribal and local authorities for applicable requirements. • Consult with local environmental agencies to determine locations with high concentrations.	• *Air Pollution* • *Risk Assessment* • *Maps and Mapping* • *Vapor Intrusion/ (VOCs)*

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Feature/Land Use	*Description*	*Potential Hazard(s)*	*Recommendations*		*Additional Information*[51]
			Screening Perimeter	*Evaluation*	
[illegible]	• Auto body shops, furniture manufacturing and repair; wood product manufacturing or processing; printing, electronics and chip manufacturing; charbroilers, commercial sterilization, back-up generators; small neighborhood metal platers	• Air pollution • Soil contamination • Ground water contamination • Surface water contamination • Odors • Vapor intrusion into structures	• Identify and evaluate other small sources within ~1,000 feet of prospective school locations • Applies to both onsite as well as adjacent or nearby locations	• Evaluate on a case- and site-specific basis. See Exhibit 5 for potential variables and mitigation options. • Consult with local health and/or environmental agencies to determine locations with high concentrations.	• *Air Pollution* • *Risk Assessment* • *Maps and Mapping*
Large agricultural growing operations	• Operations employing aerial pesticide spraying	• Air pollution (from volatilization and drift) • Soil contamination • Ground water contamination • Surface water contamination	• Identify and evaluate all large agricultural growing operations within ~3 miles	• Evaluate on a case- and site-specific basis. See Exhibit 5 for potential variables and mitigation options.	• *Air Pollution* • *Risk Assessment* • *Maps and Mapping* • *Water*
Large concentrated animal feeding operations	• Animal feeding operations	• Air pollution • Soil contamination • Ground water contamination • Surface water contamination • Odors	• Identify and evaluate all animal feeding operations within ~1 – 3 miles	• Evaluate on a case- and site-specific basis. See Exhibit 5 for potential variables and mitigation options. • Consult with local health and/or environmental agencies to determine locations with high concentrations.	• *Concentrated Animal Feeding Operations* • *Air Pollution* • *Risk Assessment* • *Maps and Mapping* • *Water*

Feature/Land Use	Description	Potential Hazard(s)	Recommendations		Additional Information[51]
			Screening Perimeter	Evaluation	
Powerlines	• High voltage power lines more than 50 kV.	• Exposure to electromagnetic fields • Safety concerns if power lines fall	• Identify and evaluate all high voltage power lines within ~500 feet of prospective school locations • Applies to both onsite as well as adjacent or nearby locations	• Consult with state, tribal and/or local authorities for requirements. • Variable, depending on voltage and if lines are above ground or below ground.	• *Power Lines* • *Electromagnetic Fields*
Cellular phone towers	• All cellular phone towers and antennas.	• Exposure to electromagnetic fields • Fall distance of towers	• Identify and evaluate cell towers within ~200 feet of prospective school locations • Applies to both onsite as well as adjacent or nearby locations	• Review and apply Federal Communications Commission regulatory guidance.	• *Electromagnetic Fields*
Hazardous material pipelines	• Oil pipelines, high pressure natural gas pipelines, chemical pipelines, high pressure water lines.	• Soil contamination Ground water contamination • Accidental release/spills of hazardous materials • Fire/heat from flammable fuels • Flooding/erosion from water • Explosion hazard	• Identify and evaluate hazardous material pipelines within ~1,500 feet of prospective school locations • Applies to both onsite as well as adjacent or nearby locations	• No hazardous pipelines on site (except natural gas serving school).	• *Pipelines* • *Maps and Mapping* • *Water*

Table 1-1

Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities*

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloro-ethylene	• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

*Notes:

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in Table 1-2.

Table 1-2

Summary of Basis for Advisory Recommendations

Source Category	Range of Relative Cancer Risk[1,2]	Summary of Basis for Advisory Recommendations
Freeways and High-Traffic Roads	300 – 1,700	• In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70% drop off in particulate pollution levels at 500 feet.
Distribution Centers[3]	Up to 500	• Because ARB regulations will restrict truck idling at distribution centers, transport refrigeration unit (TRU) operations are the largest onsite diesel PM emission source followed by truck travel in and out of distribution centers. • Based on ARB and South Coast District emissions and modeling analyses, we estimate an 80 percent drop-off in pollutant concentrations at approximately 1,000 feet from a distribution center.
Rail Yards	Up to 500	• The air quality modeling conducted for the Roseville Rail Yard Study predicted the highest impact is within 1,000 feet of the Yard, and is associated with service and maintenance activities. The next highest impact is between a half to one mile of the Yard, depending on wind direction and intensity.
Ports	Studies underway	• ARB will evaluate the impacts of ports and develop a new comprehensive plan that will describe the steps needed to reduce public health impacts from port and rail activities in California. In the interim, a general advisory is appropriate based on the magnitude of diesel PM emissions associated with ports.
Refineries	Under 10	• Risk assessments conducted at California refineries show risks from air toxics to be under 10 chances of cancer per million.[4] • Distance recommendations were based on the amount and potentially hazardous nature of many of the pollutants released as part of the refinery process, particularly during non-routine emissions releases.
Chrome Platers	10-100	• ARB modeling and monitoring studies show localized risk of hexavalent chromium diminishing significantly at 300 feet. There are data limitations in both the modeling and monitoring studies. These include variability of plating activities and uncertainty of emissions such as fugitive dust. Hexavalent chromium is one of the most potent toxic air contaminants. Considering these factors, a distance of 1,000 feet was used as a precautionary measure.
Dry Cleaners Using Perchloro-ethylene (perc)	15-150	• Local air district studies indicate that individual cancer risk can be reduced by as much as 75 percent by establishing a 300 foot separation between a sensitive land use and a one-machine perc dry cleaning operation. For larger operations (2 machines or more), a separation of 500 feet can reduce risk by over 85 percent.

Source Category	Range of Relative Cancer Risk[1,2]	Summary of Basis for Advisory Recommendations
Gasoline Dispensing Facilities (GDF)[5]	Typical GDF: Less than 10 Large GDF: Between Less than 10 and 120	• Based on the CAPCOA Gasoline Service Station Industry-wide Risk Assessment Guidelines, most typical GDFs (less than 3.6 million gallons per year) have a risk of less than 10 at 50 feet under urban air dispersion conditions. Over the last few years, there has been a growing number of extremely large GDFs with sales over 3.6 and as high as 19 million gallons per year. Under rural air dispersion conditions, these large GDFs can pose a larger risk at a greater distance.

[1]For cancer health effects, risk is expressed as an estimate of the increased chances of getting cancer due to facility emissions over a 70-year lifetime. This increase in risk is expressed as chances in a million (e.g., 10 chances in a million).

[2]The estimated cancer risks are a function of the proximity to the specific category and were calculated independent of the regional health risk from air pollution. For example, the estimated regional cancer risk from air toxics in the Los Angeles region (South Coast Air Basin) is approximately 1,000 in a million.

[3]Analysis based on refrigerator trucks.

[4]Although risk assessments performed by refineries indicate they represent a low cancer risk, there is limited data on non-cancer effects of pollutants that are emitted from these facilities. Refineries are also a source of non-routine emissions and odors.

[5]A typical GDF in California dispenses under 3.6 million gallons of gasoline per year. The cancer risk for this size facility is likely to be less than 10 in a million at the fence line under urban air dispersion conditions.

A large GDF has fuel throughputs that can range from 3.6 to 19 million gallons of gasoline per year. The upper end of the risk range (i.e., 120 in a million) represents a hypothetical worst case scenario for an extremely large GDF under rural air dispersion conditions.

Recommendation

- Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines provide 500 feet. For operations with 3 or more machines, consult with the local air district.

- Do not site new sensitive land uses in the same building with perc dry cleaning operations.

References

- *Proposed Amended Rule 1421 – Control of Perchloroethylene Emissions from Dry Cleaning Systems,* Final Staff Report. South Coast AQMD. (October 2002)
- *Air Toxic Control Measure for Emissions of Perchloroethylene from Dry Cleaning Operations.* ARB (1994) (http://www.arb.ca.gov/toxics/atcm/percatcm.htm)
- *"An Assessment of Tetrachloroethylene in Human Breast Milk"*, Judith Schreiber, New York State Department of Health – Bureau of Toxic Substance Assessment, Journal of Exposure Analysis and Environmental Epidemiology, Vol.2, Suppl.2, pp. 15-26, 1992.
- Draft *Air Toxics "Hot Spots" Program Perchloroethylene Dry Cleaner Industry-wide Risk Assessment Guidelines.* (CAPCOA (November 2002)
- *Final Environmental Assessment for Proposed Amended Rule 1421 – Control of Perchloroethylene Emissions from Dry Cleaning Systems.* South Coast AQMD. (October 18, 2002)

Gasoline Dispensing Facilities

Refueling at gasoline dispensing facilities releases benzene into the air. Benzene is a potent carcinogen and is one of the highest risk air pollutants regulated by ARB. Motor vehicles and motor vehicle-related activity account for over 90 percent of benzene emissions in California. While gasoline-dispensing facilities account for a small part of total benzene emissions, near source exposures for large facilities can be significant.

Since 1990, benzene in the air has been reduced by over 75 percent statewide, primarily due to the implementation of emissions controls on motor vehicle vapor recovery equipment at gas stations, and a reduction in benzene levels in gasoline. However, benzene levels are still significant. In urban areas, average benzene exposure is equivalent to about 50 in one million.

Gasoline dispensing facilities tend to be located in areas close to residential and shopping areas. Benzene emissions from the largest gas stations may result in near source health risk beyond the regional background and district health risk thresholds. The emergence of very high gasoline throughput at large retail or

wholesale outlets makes this a concern as these types of outlets are projected to account for an increasing market share in the next few years.

Key Health Findings

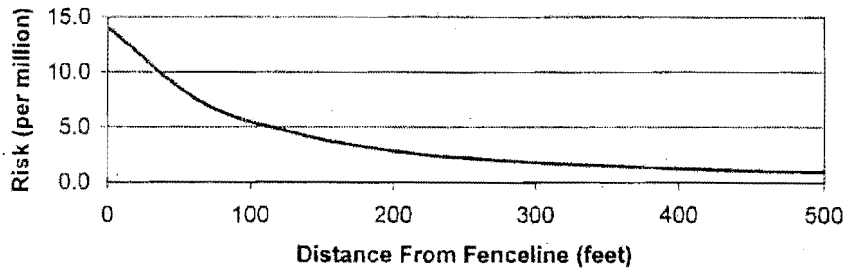
Benzene is a human carcinogen identified by ARB as a toxic air contaminant. Benzene also can cause non-cancer health effects above a certain level of exposure. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. It is unlikely that the public would be exposed to levels of benzene from gasoline dispensing facilities high enough to cause these non-cancer health effects.

Distance Related Findings

A well-maintained vapor recovery system can decrease emissions of benzene by more than 90% compared with an uncontrolled facility. Almost all facilities have emission control systems. Air quality modeling of the health risks from gasoline dispensing facilities indicate that the impact from the facilities decreases rapidly as the distance from the facility increases.

Statistics reported in the ARB's staff reports on Enhanced Vapor Recovery released in 2000 and 2002, indicated that almost 96 percent of the gasoline dispensing facilities had a throughput less than 2.4 million gallons per year. The remaining four percent, or approximately 450 facilities, had throughputs exceeding 2.4 million gallons per year. For these stations, the average gasoline throughput was 3.6 million gallons per year.

Figure 1-6
Gasoline Dispensing Facility Health Risk
for 3,600,000 gal/yr throughput



As shown in Figure 1-6, the risk levels for a gasoline dispensing facility with a throughput of 3.6 million gallons per year is about 10 in one million at a distance of 50 feet from the fenceline. However, as the throughput increases, the potential risk increases.

As mentioned above, air pollution levels in the immediate vicinity of large gasoline dispensing facilities may be higher than the surrounding area (although tailpipe emissions from motor vehicles dominates the health impacts). Very large gasoline dispensing facilities located at large wholesale and discount centers may dispense nine million gallons of gasoline per year or more. At nine million gallons, the potential risk could be around 25 in one million at 50 feet, dropping to about five in one million at 300 feet. Some facilities have throughputs as high as 19 million gallons.

Recommendation

- Avoid siting new sensitive land uses within 300 feet of a large gasoline dispensing facility (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

References

- *Gasoline Service Station Industry-wide Risk Assessment Guidelines.* California Air Pollution Control Officers Association (December 1997 and revised November 1, 2001)
- *Staff Report on Enhanced Vapor Recovery.* ARB (February 4, 2000)
- *The California Almanac of Emissions and Air Quality.* ARB (2004)
- *Staff Report on Enhanced Vapor Recovery Technology Review.* ARB (October 2002)

Other Facility Types that Emit Air Pollutants of Concern

In addition to source specific recommendations, Table 1-3 includes a list of other industrial sources that could pose a significant health risk to nearby sensitive individuals depending on a number of factors. These factors include the amount of pollutant emitted and its toxicity, the distance to nearby individuals, and the type of emission controls in place. Since these types of facilities are subject to air permits from local air districts, facility specific information should be obtained where there are questions about siting a sensitive land use close to an industrial facility.

Potential Sources of Odor and Dust Complaints

Odors and dust from commercial activities are the most common sources of air pollution complaints and concerns from the public. Land use planning and permitting processes should consider the potential impacts of odor and dust on surrounding land uses, and provide for adequate separation between odor and dust sources. As with other types of air pollution, a number of factors need to be considered when determining an adequate distance or mitigation to avoid odor or

Testimony before the Montgomery County Planning Board
June 7, 2012

My name is David Sullivan. I am a Certified Consulting Meteorologist with 37 years of professional experience. Over the past 25 years, I have served as the Principal Investigator on 10 major U.S. EPA urban-scale studies of air pollution, mostly in the area of comparative evaluation of risks associated with toxic air pollution in the U.S. I will be submitting my resume for the record.

Neither the EPA school siting Guidelines nor the C.A.R.B. (CARB) impose an outright prohibition on a certain uses within a specified distance. Instead, the distances shown in these studies are intended to serve as a guide if site-specific data are not available. The CARB report specifically states: "*to determine the actual risk, a site specific analysis would be required.*" We realize that this ZTA hearing is not a review of the scientific studies particular to the Wheaton site, however, the Wheaton Costco gas station can serve as a useful case study.

The National Ambient Air Quality Standards of the U.S. EPA are developed to protect public health and welfare with an adequate margin of safety. Sullivan Environmental has conducted a comprehensive air quality study of the proposed Wheaton Costco gas station that conclusively shows that these standards are all being met by a wide margin for all pollutants emitted in significant quantities from the proposed gas station. There is no need for further regulation. In terms of volatile organic compounds (VOCS), national standards do not exist, but the California Air Resource Board (CARB) has procedures to manage risks from VOCs. On that basis, the

Kenmont Pool and Stephen Knolls School both have a risk of less than 0.01 in a million based on detailed, site-specific analysis, i.e. 1,000 times below the CARB notification requirement of 10 that would define a high priority source .

Distance is just one of many variables that affect air quality. The pool, for example, would not be generally downwind of the gas station and the percent occupancy of the pool compared to lifetime cumulative exposures is two percent based on extreme assumptions. Site-specific analysis that considers all factors shows no objective, scientific basis to prohibit a gas station based on air quality, odor or noise impacts.

For the reasons stated above, in my judgment, specific measures to quantitatively manage risks associated with airborne emissions are best regulated by existing U.S. EPA and existing state regulatory programs. I urge the Planning Board not to support ZTA 12-07.

Two addition points will be made with the remaining time:

1. Claims made by community consultants that the station operations will create significant health risks are unsupported, irresponsible, and untrue. If they had met with Costco technical representatives as requested, they would have understood why the initial modeling overstated actual impacts and that we already were responding to all community concerns expressed at the community meeting in. We again urge the community's consultants to engage in constructive dialogue aimed at developing a consensus approach to evaluate air quality impacts. At least all sides would then be

working from the same basic facts, and differences in interpretation could be resolved through the Special Exception hearing. There is no good reason why the Planning Commission or County Council should be presented with widely differing positions on the expected air quality impacts. I have served as a community consultant on three recent industrial projects where consensus on methods was fully achieved - - two of which were in the DC metro area (Mirant Power Plant and Virginia Paving).

2. Why are gas stations are being singled out in this fashion when other commercial sources such as auto body shops, dry cleaners, print shops, etc. are not included? If such restrictions were also placed on other commercial sources of air pollution, commerce would be restricted in large areas of the County.

Supplemental Slides

COSTCO ENVIRONMENAL ANALYSIS

David A. Sullivan, Certified Consulting Meteorologist
Dennis J. Hlinka, Certified Consulting Meteorologist

All analyses are based on EPA recommended model (AERMOD), modeling options, and emission factors. All analyses have been thoroughly quality controlled and present a conservative (tend to overstate) representation of expected impacts. Fleet characteristics and inspection / maintenance assumptions for the Montgomery County vehicle fleet mix are based on standard assumptions as used by the Washington Council of Governments. These slides demonstrate that the U.S. Environmental Protection Agency's initiatives over the past 25 years to reduce airborne exposures from gas station operations and automobile emissions have been successful in controlling risks to acceptable levels and for ensuring operation within the National Ambient Air Quality Standards.

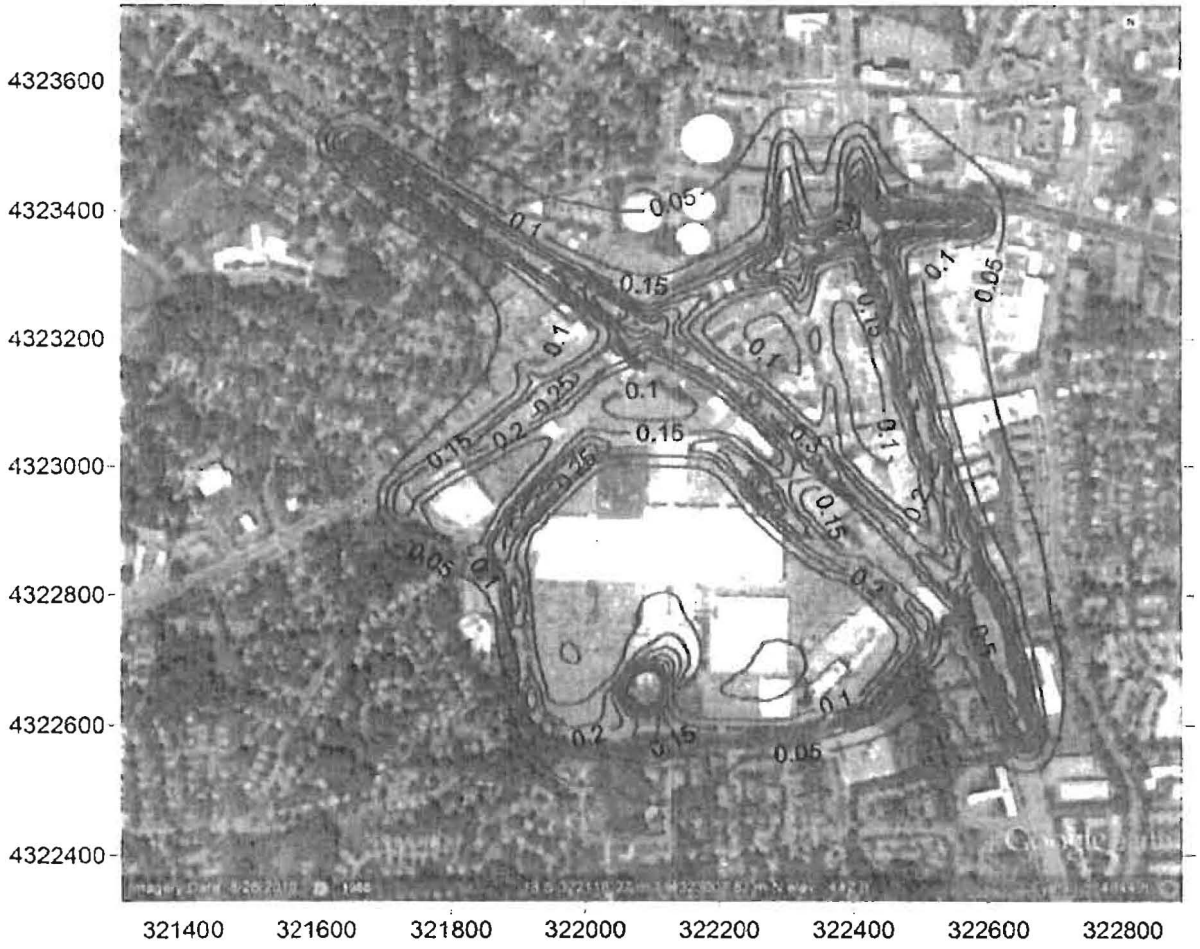
Predicted PM 2.5 Annual Concentrations (µg / m^3)

(National Standard = 15 µg / m^3)

Kenmont Swim and Tennis Center (Pool)= 0.05 µg / m^3

Stephen Knolls School= 0.06 µg / m^3

Closest Residential receptor= 0.07 µg / m^3 All Local Sources Included



**Background values based on Washington, DC Metropolitan area were found to be 14 µg / m^3 and were not included in this graph since values would be uniform due to low concentrations found in modeling.*

Predicted NOX Annual Concentrations + Background of 66 (µg / m^3)

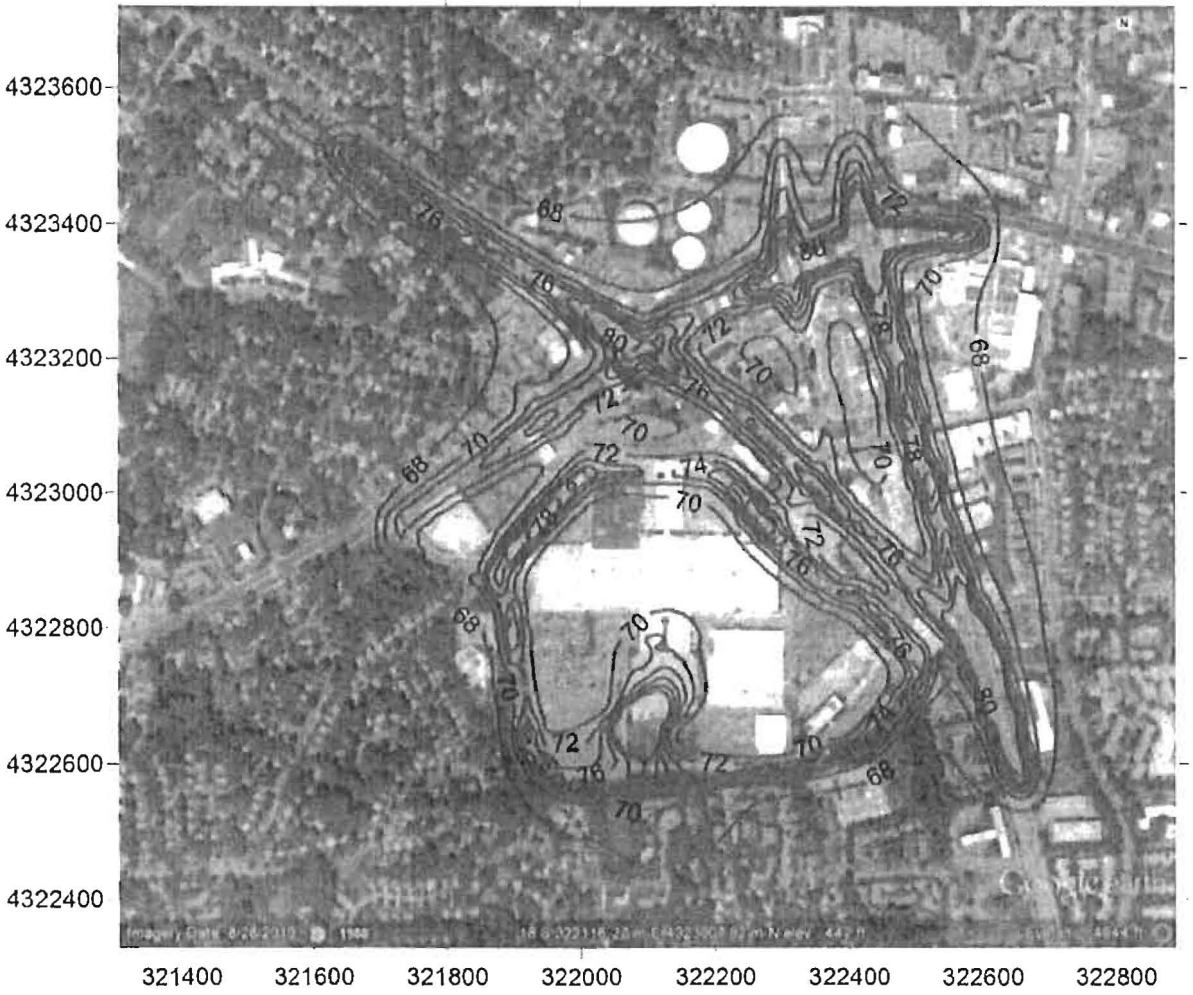
(National Standard = 100 µg / m^3)

Kenmont Swim and Tennis Center (Pool)= 68 µg / m^3

Stephen Knolls School= 69 µg / m^3

Closest Residential receptor= 70 µg / m^3

All Local Sources Included



Predicted CO 8-HR Concentrations Inc. Background of 1,602 (µg / m³)

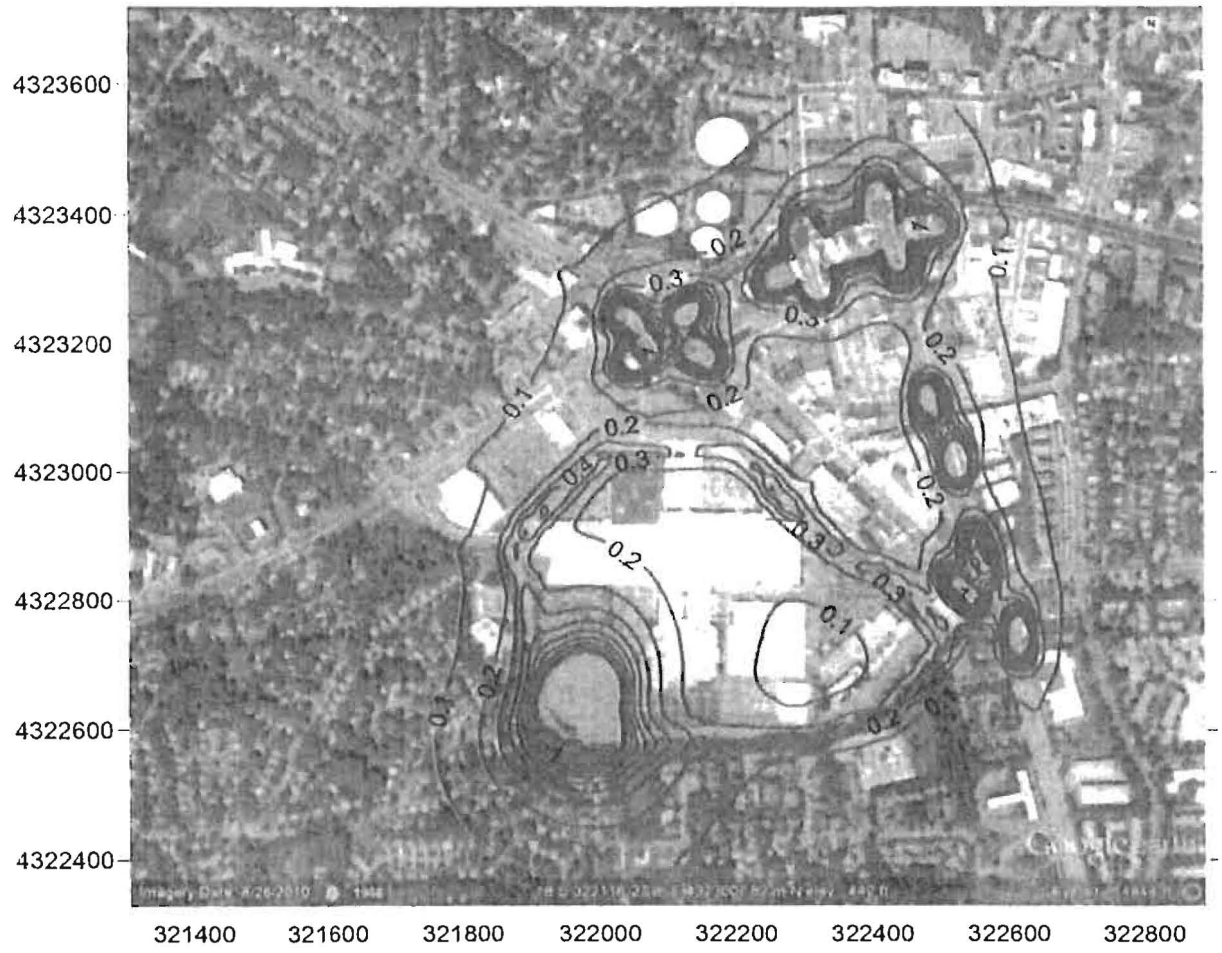
(National Standard = 10,000 µg / m³)

Kenmont Swim and Tennis Center (Pool)= 2,128 µg / m³
Stephen Knolls School= 2,450 µg / m³
Closest Residential receptor= 2,236 µg / m³

All Local Sources Included

Incremental Risks (per million) from Volatile Organic Compounds Associated with COSTCO Gas Station

As reference point: 10 in a million is notification level for California (CARB) program



This analysis assumes 100 percent occupancy at each location

Incremental VOC Risks from Gas Station Operations

VOC INCREMENTAL			
Source	Closest Receptor	Stephen Knolls School	Kenmont Pool (S)
Gas station vent	5.27E-02	2.14E-03	2.50E-02
Filling vehicles inc. spillage, underground tanks	13.45	0.37	4.03
Queueing at gas station (2.5mph)	0.23	4.03E-03	0.04
Ring Road (15 mph)	0.11	0.14	0.10
Other Roads (30 mph)	0.02	0.05	0.03
Gasoline delivery trucks (30 & 15 mph)	4.01E-03	5.00E-03	3.82E-03
Total Modeled	**13.87**	**0.57**	**4.22**
Cancer Risks	**1.05E-06**	**2.30E-07**	**3.78E-07**
70 Year Concentrations	**13.76**	**0.50**	**4.17**
70 Year Cancer Risks @100 % occupancy	**0.9 / million**	**0.2 / million**	**0.3 / million**
70 Year Cancer Risks Including occupancy (see note)	0.9 / million	< 0.01	< 0.01

(2) Small contributor

For School: Assuming maximum potential occupancy of school = 18 years x 180 days/year x 7 hours / day = 4 % pf 70 year lifetime

For Pool: assuming a maximum potential occupancy of 21 years x 75 days/year x 8 hour/day = 2 % of 70 Year Lifetime

NOx Concentrations Vs. National Standards

NOX 1-HOUR			
Source	Closest Receptor	Stephen Knolls School	Kenmont Pool
Total Modeled	32	17	14
Background	66	66	66
Total Concentrations	98	83	80
National Standard	190	190	190

33

NOX ANNUAL			
Source	Closest Receptor	Stephen Knolls School	Kenmont Pool
Queueing at gas station	0.08	<0.01	0.01
Ring Road	1.59	1.93	1.40
Other Roads	0.29	0.58	0.44
COSTCO warehouse Trucks	1.66	0.14	0.21
Total Modeled	3.62	2.65	2.06
Background	66	66	66
Total Concentrations	70	69	68
National Standard	100	100	100

Low vs Standards

Queueing at gas station (40 cars 1-hour; 10 cars on average) is very small source

CO Concentrations Vs. National Standards

CO 1-HOUR			
Source	Closest Receptor	Stephen Knolls School	Kenmont Pool
Total Modeled	2,720	2,645	1,964
Background	1,602	1,602	1,602
Total Concentrations	4,322	4,247	3,566
National Standard	40,000	40,000	40,000

CO 8-HOUR			
Source	Closest Receptor	Stephen Knolls School	Kenmont Pool
Total Modeled	634	848	526
Background	1,602	1,602	1,602
Total Concentrations	2,236	2,450	2,128
National Standard	10,000	10,000	10,000

Carbon monoxide: very low contributions relative to standards

Incremental PM2.5 Concentrations Vs. National Standards (fine particulates)

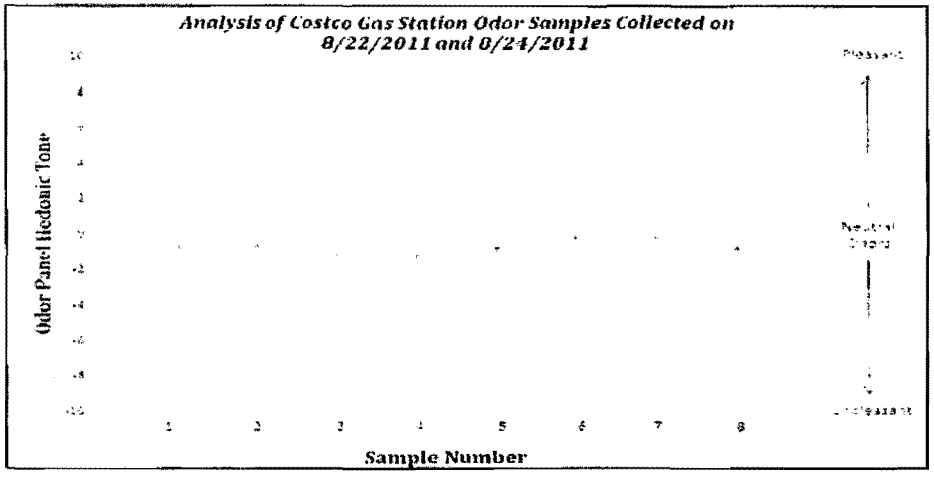
PM 2.5 INCREMENTAL	annual	annual	annual
Source	Closest Receptor	Stephen Knolls School	Kenmont Pool
Queueing at gas station (2.5 mph)	0.0011	<0.0001	0.0002
Ring Road (15 mph)	0.0035	0.0042	0.0030
Other Roads (30 mph)	0.0003	0.0005	0.0004
Gasoline delivery trucks (15 & 30 mph)	0.0008	0.0010	0.0008
Total Modeled	0.0049	0.0048	0.0036
National Standard	15	15	15

35

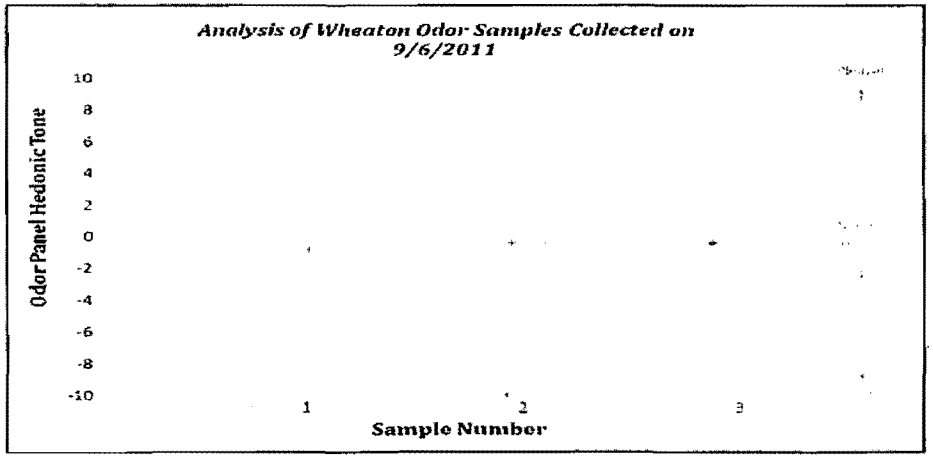
Small source

Gas station is negligible source, Including exhaust from cars traveling to the gas station, queuing in line, and diesel exhaust associated with gasoline delivery trucks

Odor Laboratory Comparison COSTCO Sterling (~260 feet downwind) & Wheaton Background

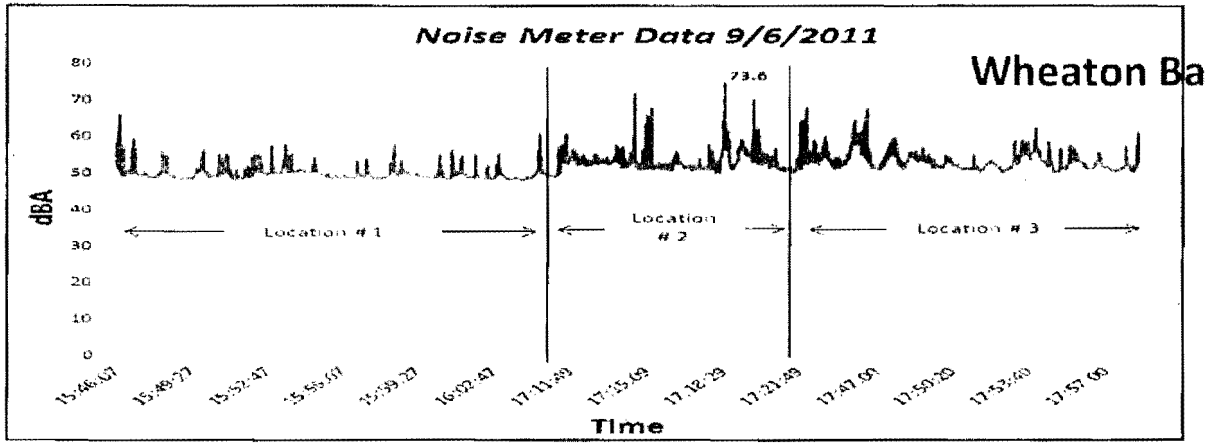


COSTCO Sterling

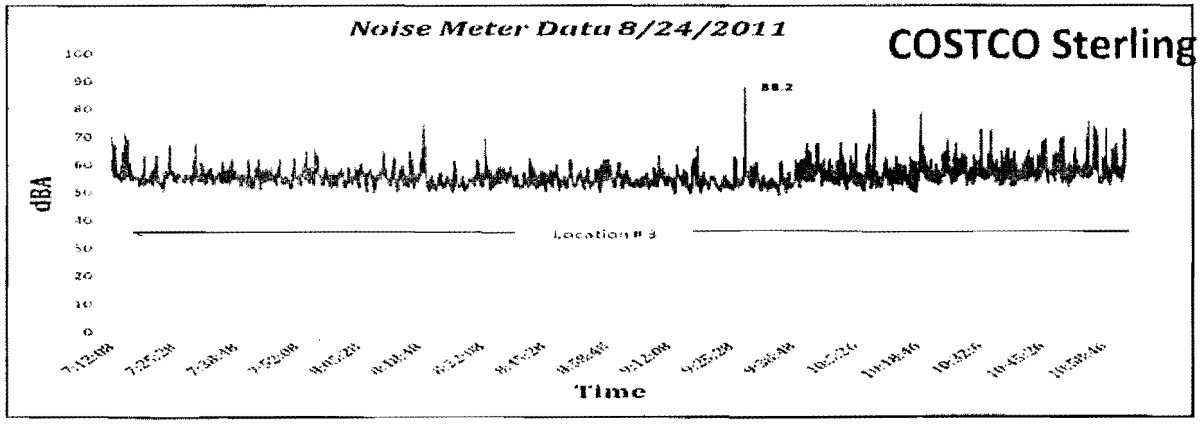


Wheaton Background

Noise Comparison COSTCO Sterling & Wheaton Background

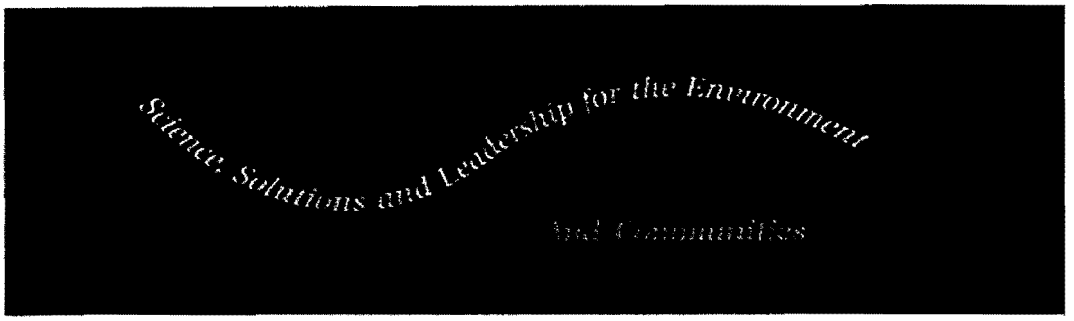


Wheaton Background



COSTCO Sterling @ ~ 260 ft

Note: 5 dBA reduction in noise COSTCO Wheaton from Barrier and Break in Line of Sight Not accounted for in directly measured COSTCO Sterling Station



Henry S. Cole & Associates, Inc./ 11229 Mattaponi Road, Upper Marlboro, MD 20772 / (301) 780 7990

TESTIMONY IN SUPPORT OF ZONING TEXT AMENDMENT 12-07

Henry S. Cole, Ph.D.

Technical Consultant Kensington Heights Civic Association
Submitted to Montgomery County Council

June 19, 2012

1.0 Summary: As a technical consultant to KHCA, I write to express my *strong support* for Zoning Text Amendment No.: 12-07 currently before the Montgomery County Council. This ZTA will require a thousand-foot separation between mega-gasoline stations and schools, hospitals, and parks – sites frequented by children and other sensitive members of the population.[1] Based on my analysis, I conclude that the 1000-ft buffer is urgently needed to protect the public health.

I would urge members of the Council to consider that children face even greater environmental health risks from air pollutants than adults. The immune system of a child is still developing. Also, children breathe significantly greater volumes of air and have a much lower body weights than adults. Thus children experience a higher body burden of air pollutants than adults for the same exposure concentration of pollutants.[2] Also at greater risk from toxic emissions are the elderly, pregnant women, and persons with existing health problems.[3]

I draw my professional judgment from an analysis of emissions from large gasoline stations, from federal and international agency sources on the toxicology and from my more than 35 years of experience in the fields of environmental science and air pollution meteorology. Especially important is the role I played as a senior

[1] The ZTA requires a buffer zone for those gasoline stations with annual throughputs of 3.6 million gallons or greater.

[2] U.S. Environmental Protection Agency (1997): Office of research and development strategy for research on risks to children (Science Council Review Draft). Washington, DC: Office of Research and Development.

[3] http://www.aqmd.gov/prdas/aqguide/doc/School_Guidance.pdf

scientist at US EPA's Office of Air Quality Planning and Standards and as head of a section focused on the application of air quality models.[4]

1.1 Critical Need for the ZTA: Mega-gasoline stations are a relatively new development nationally and, seemingly for the County. These are very large facilities, with gasoline throughputs as high as 19-million gallons per year.[5] As discussed in Section 2, mega-stations will have a far greater impact on public health and quality of life than the past generation of small, local gas stations. As the California Air Resources Board states,

> *"Gasoline dispensing facilities tend to be located in areas close to residential and shopping areas. Benzene emissions from the largest gas stations may result in near source health risk beyond the regional background and district health risk thresholds. The emergence of very high gasoline throughput at large retail or wholesale outlets makes this a concern as these types of outlets are projected to account for an increasing market share in the next few years."* [6]

Clearly, present zoning rules antecede the current advent of mega-stations, and thus do not contain the kinds of protections commensurate with their potential health threats.

Emissions from all gas stations, big and small, disperse into ambient air and increase ambient pollutant concentrations on a regional scale. The difference is that mega-stations emit a very large quantity of toxic air pollutants in a relatively small area, meaning that impacts are concentrated in the immediate vicinity of the source. (One might use the analogy of using a magnifying glass to concentrate the rays of the sun into a small scorching dot.)

It is not difficult to see why the size of a gas station matters: (1) emissions grow in proportion to the volume of gasoline distributed and the number of vehicles refueling, (2) concentrations in ambient air are proportional to emissions, (3) exposures are proportional to concentrations, and (4) for carcinogens in particular, cancer risk increases in proportion to the total long-time, chronic exposure. In short, mega-gasoline stations represent a new and different air pollution source, both quantitatively and qualitatively from the small, local gas stations currently located across the County.

The current proposed Costco station in the Kensington Heights area is the first example for the County of this type of station. This station, if approved by the County, would have an annual throughput of 12 million gallons per year and would be located within only 50 yards of the nearest home, less than 125 yards from a major recreational facility and within only a little over 1,000 feet from a school for children with severe physical handicaps. This example well illustrates the potential concerns raised by these stations absent the buffers that would be established by the ZTA.

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[4] I received a Ph.D. in meteorology (University of Wisconsin, 1969). As a professor (University of Wisconsin-Parkside), I conducted EPA-funded research on pollutant transport and dispersion and was appointed to Wisconsin's Air Pollution Control Advisory Board. During the late 70's and early 80's I served at the U.S. EPA's Office of Air Quality Planning and Standards (OAQPS) as senior scientist and chief of the Modeling Application Section. For the past 20 years, I've been President of Henry S. Cole & Associates, Inc. In this capacity I've served as an expert witness on the impact of emission sources on air quality in numerous cases. *For examples, see Attachment 1.*

[5] California Air Resources Board, *Air Quality & Land Use Handbook*, 2005, http://www.arb.ca.gov/ch/handbook.pdf, p. 32.

[6] California Air Resources Board, *Air Quality & Land Use Handbook*, 2005, http://www.arb.ca.gov/ch/handbook.pdf

2.0 Mega-Stations: A major source of toxic air pollutants: Table 1, below, lists the VOC constituents emitted from gasoline stations, in proportion to the station's annual throughput. As the table shows, all of the constituents listed has been designated by U.S. EPA as Hazardous Air Pollutants (HAPs). As defined in the Clean Air Act, *(HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.*[7] In addition Table 1 shows that government health agencies have designated five of the VOCs as known or potential human carcinogens.

2.1 Other pollutants: Nor is cancer the only concern; numerous studies have shown that fine particulate matter (PM2.5) from car and diesel exhausts can cause a variety of respiratory and cardiovascular diseases. Exposures to PM2.5 and diesel exhaust can also trigger asthma attacks, especially in children (See Section 2.4).

Table 1: Volatile Organic Compound (VOC) Constituents of gasoline[8]

Gasoline constituents (Volatilized to air)*	EPA Hazardous Air Pollutant (HAP)?	Carcinogenic?	Comments
Benzene	Yes	Known Human carcinogen	Long-term exposure to high levels of benzene in the air can cause leukemia, particularly acute myelogenous leukemia. The U.S. Department of Health and Human Services (DHHS), EPA, & other health have designated benzene as a known human carcinogen. The International Agency for Research on Cancer (IARC/WHO) (Source: ATSDR/CDC)[9] According to EPA benzene is carcinogenic to humans for all exposure routes including inhalation.[10]
Ethylbenzene	Yes	Possible human carcinogen	IARC / WHO[11]
N-Hexane	Yes	No evidence	ATSDR
Toluene	Yes	No evidence	ATSDR
Xylene	Yes	Insufficient evidence	ATSDR
Products of Incomplete Combustion of gasoline*			
Benzene	Yes	Known human carcinogen	See Row 1 above for references
1,3 butadiene	Yes	Known human carcinogen	National Toxicology Program, NIH[12]
Formaldehyde	Yes	Known human carcinogen	National Toxicology Program, NIH[13]; International Agency for Research on cancer (IARC/WHO).[14]
Acetaldehyde	Yes	Reasonably anticipated as carcinogen	National Toxicology Program NIH[15]

2.2 Lines of Idling Vehicles: Idling cars as well as moving vehicles in and around a gas station emit a variety of contaminants including cancer-causing volatile organic compounds (see Section 2.3 and Table 1), and products of incomplete combustion (PICs). The PICs include very fine particulate matter, and a number of pollutants known to cause cancer in humans including formaldehyde and benzo(a)pyrene.[16] The most toxic

[7] http://www.epa.gov/oecaerth/monitoring/programs/caa/neshaps.html

[8] The list of VOCs in Table 1 is taken from Sullivan Environmental Consulting, December 20, 2011. For sources of toxicological information follow footnotes in column 4.

[9] Centers for Disease Control, Agency for Toxic Substances and Registry (ATSDR); http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=38&tid=14

[10] http://www.epa.gov/ttn/atw/hlthef/benzene.html

[11] http://monographs.iarc.fr/ENG/Monographs/vol77/volume77.pdf

[12] http://ntp.niehs.nih.gov/ntp/roc/twelfth/profiles/Butadiene.pdf

[13] http://ntp.niehs.nih.gov/ntp/roc/twelfth/profiles/Formaldehyde.pdf

[14] IARC on formaldehyde

[15] http://ntp.niehs.nih.gov/ntp/roc/twelfth/profiles/Acetaldehyde.pdf

[16] According to U.S. EPA, benzo(a)pyrene is a polycyclic aromatic hydrocarbon (PAH) formed as a byproduct of incomplete combustion or burning of organic (carbon-containing) including gasoline. This chemical is less volatile than the VOCs ; however, it adheres to the surfaces of fine particulates which are inhaled and retained deep into the respiratory tract. http://www.epa.gov/teach/chem_summ/BaP_summary.pdf

particulates are those with diameters less than 2.5 micrometers (millionths of a meter). These very small particles (labeled PM2.5 by EPA) are respirable, meaning they are inhaled into and retained in the lungs; they have been linked to a variety of respiratory and cardiovascular diseases. Pollutants such carcinogenic benzo(a)pyrene are carried deep into the respiratory system given their tendency to adhere to the enormous surface area of fine particulate matter.

Idling also wastes fuel and release the green house gas carbon dioxide.

The available evidence suggests that stations built on the Costco model typically have substantial numbers of idling cars over much or all of a typical day. Costco's own study of its Columbia, MD station found that on March 31, 2012, an average 34 cars were idling over the station's six lanes during the entire several-hour study period. This would clearly be a typical shopping day, and the number of customers during peak holiday shopping periods would presumably be even higher. This is significant because short-term exposures to elevated levels of particulates can trigger asthmatic attacks and other respiratory and cardiovascular symptoms.

While the Wheaton site would have 16 pumps, not 12 as in Columbia, it is also projected to pump 12 million gallons, rather than the 9 million gallons sold in Columbia, creating the same overburdened ratio of pumps to gasoline sold. Thus, it would be reasonable to assume that, at least the same number of idling cars would be present in Wheaton as well.

Please note that Sullivan Environmental's air quality assessment for the proposed facility at the Westfield Mall uses a station-wide average of 2 cars idling rather than 34 cars. Using this unrealistically low average of 2 cars idling *substantially* underestimates the impact of idling vehicles by a factor of 17. For this and other reasons cited in this report, Sullivan's estimates of pollutant concentrations and cancer risks are likely to be substantially under-predicted.

2.3 Volatile Organic Compounds: Mega-gas stations are large emitters of volatile organic compounds (VOCs). The term "volatile" refers to the *strong tendency* of these chemicals to evaporate and become airborne and expose those who reside or frequent the area to a number of highly toxic chemicals including benzene, a known human carcinogen. *Sullivan Environmental Consulting estimates that a facility with an annual distribution of 12 million gallons (such as Costco's proposed facility for Westfield Mall) would emit approximately 17.4 tons of VOCs per year.*[17] Sources of VOC emissions with estimates of totals for a 12-million gallon/yr facility are shown on Table 2.

Costco Gasoline Station Source Name	VOC Emissions (lb/year)
Filling of Underground Storage Tanks →	1,032.10
Underground Storage Tank Breathing →	12,041.21
Vehicle Fueling →	13,245.33
Spillage →	8,428.85
Total lbs per year:	34,746
Total tons per year:	17.4

Table 2: Source: Sullivan Environmental (December 20, 2012 report) Costco Wheaton.[18]

[17] Sullivan Environmental Consulting, Inc., Air Quality, Odor, and Noise Analysis for Proposed Costco Gas Station in Wheaton, Maryland, December 20, 2011.

[18] Sullivan Environmental Consulting, Inc., Air Quality, Odor, and Noise Analysis for Proposed Costco Gas Station in Wheaton, Maryland, December 20, 2011.

Please note that the 17-ton total only includes emissions resulting from the evaporation of gasoline and does <u>not</u> include those emissions associated with gasoline combustion, including (1) vehicles approaching/leaving the gas station (2) queues of idling vehicles awaiting a turn at the pump (3) gasoline and other gasoline tanker trucks moving in and out and idling while refilling underground storage tanks. This is another reason that in my opinion Sullivan's cancer risk values are likely substantially under-predicted.

2.4 Diesel exhaust: The tanker trucks that deliver fuel to gasoline stations have diesel engines which give off highly toxic fine particulates, gases and organic compounds resulting from the incomplete combustion of diesel fuel. Most of the diesel engines in use are old and are not required to retrofit to meet EPA's requirements of new engines. *The World Health Organization's Agency for Research on Cancer (IARC) recently classified diesel engine exhaust as known human carcinogens, causing lung cancer (Group 1).*[19]

Diesel exhaust consists of many particulates and gases. The particulate component (PM2.5) is especially toxic; these fine particles can penetrating and are retained deep in the lungs. They include large quantities of *ultrafine particles*, particles with a diameter less than 0.1 micrometers (μm) particles with an enormous surface area that greatly enhances their potential for adsorbing organics including a number of highly toxic products of incomplete combustion including formaldehyde, acetaldehyde, and poly- aromatic hydrocarbons.[20] There is strong evidence showing that proximity to traffic to increases adverse health risks including respiratory and cardiovascular disease.[21]

<u>Long term exposure:</u> Residents living in the vicinity can be exposed to a gas station's toxic emissions for many years, this increasing the lifetime cancer risk. Several long-term air pollution studies (one tracking 1 million people in 150 cities over 16 years) found a strong link between chronic (long-time) exposure to fine particulates and elevated risk of premature cardiac death.[22,23] Other research shows that exposure to respirable particulates elevates the risk of heart disease among women.[24]

<u>Short-term exposures</u>: Although the link between long-term inhalation of diesel fumes (over many years) has been known for decades, recent studies have shown that very short-term exposures -- even

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[19] IARC determined that there is sufficient evidence to demonstrate that exposure to diesel exhaust causes an increased risk for lung cancer in humans. Press release, June 12, 2012. http://press.iarc.fr/pr213_E.pdf

[20] U.S. EPA, *Health Assessment Document for Diesel Engine Exhaust*, 2002. http://www.epa.gov/ttn/atw/dieselfinal.pdf

[21] Clean Air Task Force, Multi-City Investigation of Diesel Exhausts in Multiple Commuting Modes, 2007, http://www.catf.us/resources/publications/files/Multi_City_Commuter_Exposure_Report.pdf

[22] Pope, C.A., Thun, M.J., Namboordiri, M.M. and Dockery, D.W., et al.; Particulate Air Pollution as a Predictor of Mortality in a Prospective Study of U.S. Adults. 151 American Journal of Respiratory and Critical Care Medicine (1995). http://ajrccm.atsjournals.org/search.shtml. (As cited in Clean Air Task Force, Multi-City Investigation of Diesel Exhausts in Multiple Commuting Modes, 2007, http://www.catf.us/resources/publications/files/Multi_City_Commuter_Exposure_Report.pdf)

[23] Krewski, D., Burnett, R.T., Goldberg, M.S., Hoover, K., Siemiatycki, J., Jerrett, M., Abrahamowicz, A. and White, W.H., Reanalysis of the Harvard Six Cities Study and the American Cancer Society Study of Particulate Matter and Mortality; Special Report to the Health Effects Institute, Cambridge, MA (July 2000). (Cited in http://www.catf.us/resources/publications/files/Multi_City_Commuter_Exposure_Report.pdf)

[24] Miller, K., Siscovik, D., Sheppard, L., Shepherd, K., Sullivan, J., Anderson, G. and Kaufman, J. (2007). Long-term exposure to air pollution and incidence of cardiovascular events in women. New England Journal of Medicine, v. 356, No. 5, p. 447-458, February 1, 2007. (Cited in http://www.catf.us/resources/publications/files/Multi_City_Commuter_Exposure_Report.pdf)

a single day's -- can cause serious harm to cardiovascular and respiratory systems. For example, exposure to diesel exhaust for a single day can trigger asthma attacks in children and increase susceptibility to allergies. Pulmonary inflammation in humans can present itself even after as little as 1- hour of exposure to diesel exhaust.[25]

Aging diesel fleets: According to EPA, the exceptional longevity of diesel trucks is an important factor in estimating diesel emissions and exposures because older vehicles are subject to less stringent regulations. Many remain in use for several decades after their manufacture and are not required to retrofit in order to meet much stricter emission standards now required for new diesels.[26]

Mega-stations and diesel exhausts: Large gas stations (such as that in Columbia, MD and the proposed Westfield Mall facility) sell on the order of 25,000 to 33,000 of gallons of gasoline per day or more. Refilling of underground storage tanks is conducted by larger tank trucks that deliver the fuel in volumes 5,500 to 9,000 gallons.[27] Thus, a facility of this size would likely receive about 3-5 tanker deliveries per day. These diesel-powered tankers exhaust their fumes while traveling in and out of the station. In the case of the proposed Westfield Mall facility the tankers are likely to travel along the ring road immediately adjacent to residential neighborhoods. Moreover, unless a "no-idling rule" is strictly enforced (night as well as day), diesel exhausts will also be emitted during filling (also a source of VOC contamination).

Multiple exposures: The effects of air pollutants on human health cannot be isolated to a single source or single pollutant. While the cumulative effects of multiple pollution sources can be difficult to assess, a risk assessment that fails to consider the cumulative impact of all applicable sources (as Costco's consultant, Sullivan Environmental has done) will underestimate potential health risks. Inclusion of a mega gas station on the footprint of an existing large mall or "town center" will combine its emissions with those of numerous sources from the other operations, many of which include the same pollutants as those emitted from gas stations. Additional sources include parking lot traffic, deliveries to loading docks via diesel trucks and the major roadways that surround Westfield Mall. Local vehicle traffic also emits the same pollutants with the same health effects as those associated with gas stations. Those living or frequenting areas near such facilities tend to experience exposure to the same pollutants over long periods of time. This is important because the risks of cancer and certain other adverse health effects grow in proportion to the accumulated exposure (dosage).

3.0 Basis for 1000-ft: The 1000-ft separation distance is based on studies and risk assessments on the risks of cancer posed by large gasoline stations. Most of the work has been done by California regulatory agencies. California guidelines call for sites of schools and other sensitive land uses to be sited at least 300 feet from large gas stations in order to minimize the risk of cancer.[28] However, the larger 1000-ft buffer zone in the proposed ZTA is appropriate for the following reasons:

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[25] Salvi, S., Blomberg, A., Rudell, B., Kelly, F. Sandstrom, T., Holgate, S. and Frew, A. (1999). Acute inflammatory responses in the airways and peripheral blood after short-term exposure to diesel exhaust in healthy human volunteers. American Jour. Resp. Crit. Care Medicine, v. 159, 702-709. (Cited in http://www.catf.us/resources/publications/files/Multi_City_Commuter_Exposure_Report.pdf)

[26] U.S. EPA, *Health Assessment Document for Diesel Engine Exhaust*, 2002. http://www.epa.gov/ttn/atw/dieselfinal.pdf

[27] http://en.wikipedia.org/wiki/Tank_truck. Costco has indicated that it uses 9,000 gallons tankers; at that rate, it would require an average of about 3.5 trucks per day, 365 days a year, to supply the 12 million gallons it projects to sell at the Westfield site. Other retailers might use smaller trucks requiring more deliveries per day.

[28] California Air Resources Board, April 2005, *Air Quality and Land Use Handbook*, http://www.arb.ca.gov/ch/handbook.pdf

- The larger buffer zone provides greater protection for sensitive members of the population including children, elderly and chronically ill. Buffer zones should be based not only on cancer risks, but also the short-term, acute effects of exposure for example, asthma attacks in children during worst case scenarios for emissions and/or meteorological conditions (see Section 4).

- California's 300-ft distance was calculated for a gasoline station with a 3.6 million gallon. Much larger facilities such as Costco's proposed 12-million gallon require a larger buffer zone resulting from the increased risk resulting from proportionately higher concentrations at each downwind distance. The California report makes clear that the risks from larger stations are directly proportional to the size of the facility, and suggests that as the gas station gets larger, decision-makers should use proportionately larger buffer zones.

- Secondly, California's 300-ft separation did not include *any* analysis of emissions from idling cars, a significant source of and known human carcinogens including benzene and formaldehyde as well as fine particulates (PM2.5) which contribute to respiratory and cardiovascular disease.[29] A wider buffer is needed to address the cumulative impact of the additional health risks posed by idling car emissions.

- A 1000-ft separation provides a greater degree of protection in areas where local conditions tend to result in high concentrations – which is a significant factor at the Westfield Mall location. This factor is discussed in Section 4.

4.0 Local site conditions, transport and dispersion of pollutants: Not all sites are alike with regard to the atmosphere's ability to disperse pollutants. Thus, ZTA's 1000-ft buffer zone adds the margin of safety needed to afford sufficient protection where sites are prone to adverse dispersion conditions. As an example, consider the topographically induced micrometeorological conditions in the area adjacent to Costco's proposed Westfield Mall gas station. The land abutting the shopping center has a pronounced downward slope with residential neighborhoods and a recreational facility occupying the area of lower elevation within in tens of yards of the west and south of the proposed facility.

Figure 1 illustrates a condition frequent during the early morning, evening and night at times with relatively clear skies and low wind speeds. During such periods, the surface cools much more rapidly than the overlying air creating a temperature inversion (temperature increasing with increasing height). Temperature inversions create extreme stability in the atmosphere, meaning an absence of the turbulence that facilitates dispersion (dilution) of air pollutants. A related factor (see Figure 1) is the continual downslope movement of cool, dense air that occurs during such periods causing a high frequency of winds from the gas station toward the adjacent neighborhoods south and west of the proposed site. (See Figure 2 for locations and distances). Secondly these neighborhoods which occupy a low area are likely to experience a elevated pollutant concentrations due to topographically induced cold air drainage inversions with as is shown in Figure 4.[30] Note that using weather data from regional (relatively flat) airports (as done by Sullivan) will miss such topographic effects. Such adverse dispersion conditions often occur at the very time when emissions are highest due to rush hour traffic and heavy use of the gas station.

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[29] California Air Resources Board, *Gasoline Service Station Industrywide Risk Assessment Guideline*, Nov. 1997, http://www.arb.ca.gov/ab2588/rrap-iwra/GasIWRA.pdf, p. 8.

[30] Cool air drainage and associated inversions have been well established in the meteorological literature. For example see: C. David Whiteman and Shiyuan Zhong, "Downslope Flows on a Low-Angle Slope and Their Interactions with Valley Inversions." *Journal Of Applied Meteorology And Climatology*, July 2008.

Figures 3, 4, and 5 show the visible haze during conditions with temperature inversions and topographically induced cold air drainage. The lack of turbulence leads to elevated air pollution levels.

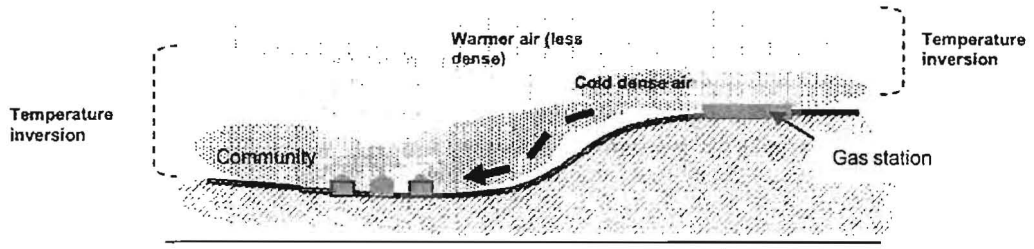

Figure 1: Schematic diagram showing cold air drainage and cause downslope flow and a temperature inversion.

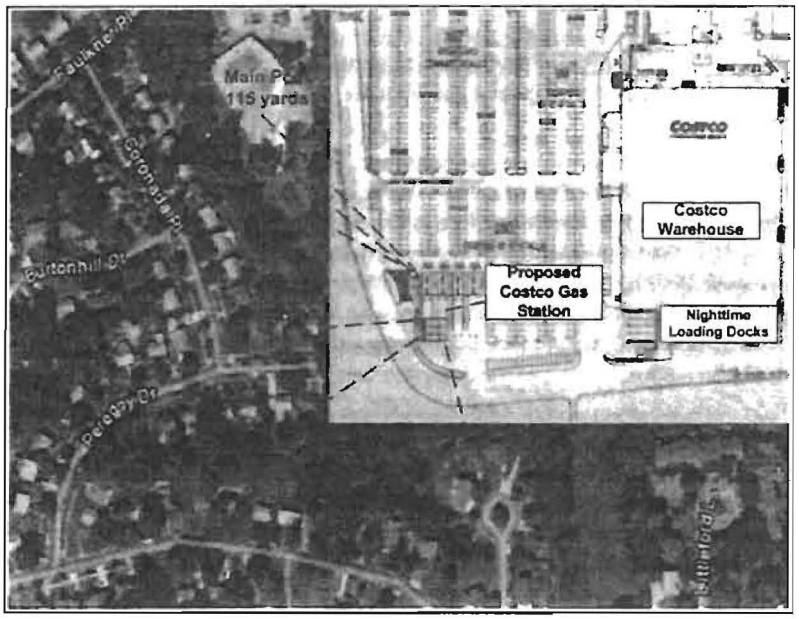

Figure 2: The area of the proposed gas station and surroundings.

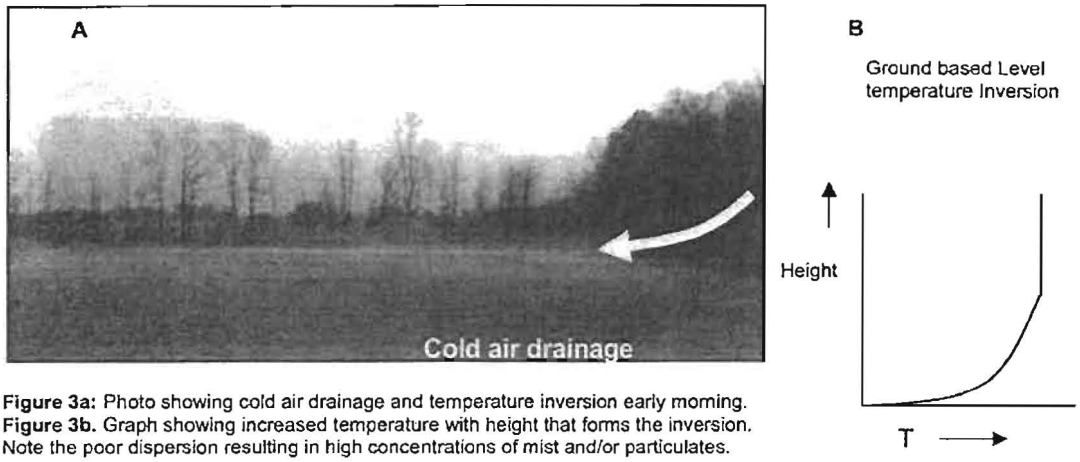

Figure 3a: Photo showing cold air drainage and temperature inversion early morning.
Figure 3b. Graph showing increased temperature with height that forms the inversion. Note the poor dispersion resulting in high concentrations of mist and/or particulates.

Please note that standard air modeling studies typically use meteorological data from regional airports. Airports are located in flat terrain and meteorological stations while representative of regional conditions are likely to miss the impacts of these adverse conditions *and underpredict concentrations of air pollutants* and associated toxicological risks in adjacent communities. A good example is the Sullivan Environmental air quality assessment which uses weather data from area airports. Similarly, the study took measurements from monitors placed at the Sterling Costco facility; one located in a large flat shopping area, which is markedly different from the sloping topography in the Westfield area. Again, these differences are one of the reasons that a generally applicable rule needs to build in safety margins that will make it adequate when utilized for a wide variety of settings.

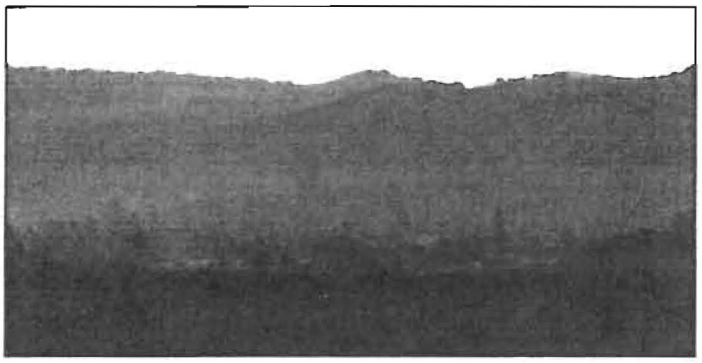

Figure 4: Ukiah Valley experiencing downslope flow, cold air pooling and a low level temperature inversion, holding creating the haze in valley. Source: http://ukiahcommunityblog.wordpress.com/2009/12/09/mendocino-county-why-are-you-filling-our-lungs-with-pollution/

OFFICE OF THE COUNTY EXECUTIVE
ROCKVILLE, MARYLAND 20850

Isiah Leggett
County Executive

MEMORANDUM

July 5, 2012

TO: Roger Berliner, President
County Council

FROM: Isiah Leggett
County Executive

SUBJECT: ZTA 12-07, Special Exceptions – Automobile Filling Stations

The purpose of this memorandum is to express my opposition to Zoning Text Amendment (ZTA) 12-07, Special Exceptions - Automobile Filling Stations because it has the potential to undermine the County's special exception process and economic development.

While I understand that some members of the community have concerns about the proposed gas station operations at this site, our special exception process administered by the Board of Appeals is specifically designed to ensure that concerns about compatibility and other impacts on neighborhoods are fully considered. Impacted stakeholders may participate in the process and have those concerns addressed in an impartial manner.

A zoning ordinance, like any other law, may not create statutory classifications that are arbitrary or not substantially related to the public welfare. And a law may not be written so narrowly that it discriminates against any individual or business. As far as I can determine, the only gas station impacted by ZTA 12-07 is the proposed gas station at the Costco store being constructed at the Westfield Wheaton Shopping Mall. I have asked the County Attorney to prepare an opinion as to the legal validity of ZTA 12-07 in light of both of these principles which restrict Council's legislative authority.

It is my understanding that Costco initially applied for the required special exception in November 2010 and that the Planning Board's public hearing on the special exception, originally scheduled for May 2012, was postponed after ZTA 12-07 was introduced at Council. I am concerned that this sequence of events may send a message to the retail market that the County is an uncertain place to do business.

While I understand the sentiments of those who are concerned about the community impacts of the proposed gas station, I recommend that the Council avoid a change in policy at this time and reject ZTA 12-07 and allow the special exception process to continue as originally intended to fully address the concerns raised by the community.