

MEMORANDUM

September 6, 2006

TO: Ad Hoc Agricultural Policy Working Group

FROM: Marlene Michaelson, Senior Legislative Analyst *MM*
Jeff Zyontz, Council Analyst *JZ*
Amanda White, Council Legal Analyst *AW*

SUBJECT: September 11, 2006 Meeting

Our next meeting is scheduled for September 11, 2006 from 4:00 p.m. to 6:00 p.m. in Room A at the Upcounty Regional Services Center. Attached are additional background materials for this meeting. These include the following:

- an agenda;
- minutes from the August 7 meeting;
- a staff policy paper on Sand Mounds.

Since we know that some Group members have had direct experience with sand mounds, we hope to spend a few minutes at the beginning of the meeting hearing about your experiences.

AGENDA
AD HOC AGRICULTURAL POLICY WORKING GROUP

Monday, September 11, 2006
Upcounty Regional Services Center
4:00 to 6:00 p.m.

- 4:00 Approve Minutes

- 4:05 Background presentation on Sand Mounds by Jay Beatty, Manager, Well and Septic Section, Montgomery County Department of Permitting Services

- 4:15 Group Member opening comments on Sand Mounds

- 4:25 Review of Staff Policy Options on Sand Mounds.

- 5:55 Topics for follow-up issues to be discussed at future meetings.

- 6:00 Adjourn

**AD HOC AGRICULTURAL POLICY
WORKING GROUP MINUTES**

Monday, August 7, 2006
4:08 P.M. to 5:56 P.M.

Up-County Regional Services Center Room A

PRESENT

Working Group Members

Lib Tolbert, Chair	Scott Fosler, Vice-Chair
Wade Butler	Bo Carlisle
Margaret Chasson	Jim Clifford
Nancy Dacek	Jane Evans
Robert Goldberg	Tom Hoffmann
Michael Rubin	Pam Saul
Drew Stabler	Billy Willard
Wendy Perdue	

Montgomery County and State Staff

Nancy Aldous, County Council	Marlene Michaelson, County Council
Karl Moritz, M-NCPPC	Callum Murray, M-NCPPC
Doug Tregoning, Montgomery County Cooperative Extension	Amanda White, County Council
Jeff Zyontz, County Council	

ABSENT

Jim O'Connell

GUESTS

Councilmember Nancy Floreen	Jay Beatty, County Department of Permitting Service
Christopher Sasiadek, M-NCPPC	John Zawitoski, County Department of Economic Development
Andrea Arnold	Vince Berg
Sharon Dooley	Douglas Sherwood

The Group had before it the July 19 and August 2, 2006 memoranda with attachments from Marlene Michaelson, Jeff Zyontz, and Amanda White.

The Group tentatively supported the draft recommendation for building location strategies.

The Group approved the minutes for the July 24, 2006 meeting with the following change:

- On page 3, revise 6th bullet as follows: replace the phrase “should determine where homes should be placed” with the phrase “often determines where homes are placed”.

The Group confirmed that the meeting date and time will remain the same through the fall and confirmed its support of the draft meeting schedule.

The Group continued discussing the building lot termination (BLT) program and agreed to approach the topic by discussing the following categories: purpose of the BLT program; general principles of qualification; prioritization; procedures; and who should provide the compensation (public or private).

The Group was conceptually supportive of a BLT program, but emphasized that there were many details of the program that needed to be worked out.

The Group generally agreed that there are 2 **goals and purpose** of the program” 1) reduce the number of “fifth TDRs” and buildable lots in the Agricultural Reserve while providing equity to landowners; and 2) preserve as much usable farmland as possible. Group members made the following comments about the purpose of the BLT program:

- Some Group members felt that the primary purpose of the BLT program was to reduce the number of rooftops in the Agricultural Reserve while others felt that the primary purpose of the BLT program was to prevent fragmentation and preserve as much farmland as possible.
- Some Group members felt that the motivation behind the BLT program does not matter as long as the County established the program; other Group members felt that the purpose mattered when deciding program priorities.

The Group discussed how the BLT program would be **funded** and conceptually agreed that using public funds for this program is a possibility if the funds are administered appropriately. The Group further agreed that the BLT program could also be funded privately, such as through a fifth transferable development right (TDR) purchase program. The Group agreed that the County should employ the use of TDRs in commercial zones to help fund the BLT program. Group members had the following comments regarding funding the BLT program:

- Some Group members were troubled at the idea of public funding; other Group members felt that one of the best uses of the Agriculture Fund and public money is to retire the fifth TDR. Some Group members were comfortable using public funds as seed money to jump start the program. One Group member noted that all of the preservation programs cost money and use public funds.
- Some Group members were opposed to using public money to purchase BLTs if the County intends to resell the TDRs, but were conceptually supportive of using public funds to retire fifth TDRs. These Group members were concerned that reselling TDRs may invite corruption (e.g., setting prices too low or too high). Other Group members felt that the idea of reselling fifth TDRs was plausible.

The Group discussed options for determining the **amount of compensation** a landowner should receive for terminating any qualified building lot. The Group agreed that, perc testing should be required before a building lot qualifies for the BLT program. One Group member noted that the Internal Revenue Service relies on a perc test in determining the value of a building lot for gift and grant tax deduction purposes. The Group did not support compensation based on proven lots, which requires the landowner to prove that they have a buildable lot prior to allowing the landowner to participate in the program. The Group did not favor this method because it required a landowner to expend too many resources and may result in the landowner opting to sell lots instead of participate in the BLT program once the owner has gone through all of the requirements for proving the owner has a buildable lot. The Group also did not support compensation based on the theoretical maximum number of building lots in the RDT zone. The Group felt that the landowner should provide some assurances that the landowner has a buildable lot prior to participation in the program and therefore supported requiring a perc test.

The Group discussed **qualifications and eligibility** requirements and generally agreed to the following limitations in the BLT program:

- The Group agreed that the BLT program should be limited to properties that have retained the fifth TDR. The Group felt that properties that have used the fifth TDR (by either sale of a TDR or to build a house) should be excluded from the program because these properties do not have a building lot to terminate.
- The Group agreed to exclude properties from the BLT program that have already sold easements to other County and state programs, except easements sold through the existing TDR program. The Group felt that landowners should not be compensated more than once for abstaining from developing their property.
- The Group did not support excluding from the program land that does not have at least 50% of its soils classified as “prime and productive” by the United State Department of Agriculture. Group members noted that some types of agriculture do not require “prime and productive” soils (e.g., the equine industry).
- The Group did not definitively decide whether to limit the BLT program to land in agricultural production. Some Group members felt that limiting the BLT program to land in agricultural production fulfilled the goal of preserving farmland. Group members were generally troubled by the phrase “agricultural production” because it is unclear when land is in agricultural production. Some Group members suggested that land should be considered in agricultural production when the land has received an agricultural assessment. The Group agreed that this issue required further consideration.
- The Group did not support limiting the BLT program to specific geographical areas for the same reasons that the Group did not support limiting the program to certain soil classifications.
- The Group did not definitively decide whether to exclude land with “non-farm buildings” (e.g., a church) from the program. Group members suggested clarifying the wording on this option to ensure that tenant houses are not subject to any limitation that applies to non-farm buildings. The Group agreed that this issue required further consideration.
- The Group agreed that participation in the BLT program requires a landowner to create the “excess” TDRs through a TDR easement that is recorded among the land records.

This option does not require a landowner to sell their excess TDRs, but only serialize them.

- The Group agreed that child lots should not qualify for the BLT program. Group members did not believe child lots should become a matter of pure equity as opposed to a way for the child to remain on the land.

The Group agreed that **priority** in the BLT program should be given to farmers that are actually participating in farming activities on their land.

Group members had the following **additional comments** regarding the BLT program:

- County staff estimated that approximately 12 people have already expressed interest in a BLT program. Some Group members were encouraged by this statement, but other one Group member was concerned because they felt that without a developed program, it was difficult to know whether those people knew what they were expressing interest in. Another Group member noted that while it was encouraging to know that a few people are already expressing interest in a BLT program, there remains significantly more 5th TDRs in the Agricultural Reserve.
- Some Group members felt that the BLT program was intertwined with the issue of sand mounds because the ability to use sand mounds increases the number of buildable lots.
- Some Group members suggested that the Group should think about whether or not there needs to be an incentive for out-of-state landowners to participate in the BLT program as opposed to subdividing.

Audience members submitted the following comments:

- How about using the following for the BLT program: “tiered termination BLT”
 - No perc tests – has TDR 12.5 to 25% of full approved building appraisal as bases;
 - Approved perc test – has TDR 50% of full approved building lot appraisal;
 - Approved perc test – has TDR approved Park and Planning preliminary plan 65% of full approved building lot appraisal;
 - Approved perc test – has TDR approved Parking and Planning preliminary plan record plat recorded or ready to record plat 80% of full approved building lot appraisal.

Minutes written by Amanda White, Council Legal Analyst

STAFF POLICY PAPER
SAND MOUNDS
Draft Date: September 5, 2006

ISSUE: Whether the use of sand mounds should be prohibited or limited in the RDT zone.

PROBLEM STATEMENT

Development in the RDT zone is likely to yield less than the 1 unit per 25 acres allowed by right due to sewer limitations (e.g., when land unable to perc). The use of sand mounds can potentially increase the actual density so that it reduces the difference between actual and theoretical density. This, in turn, could potentially increase the fragmentation of agricultural land.

INTRODUCTION TO SAND MOUNDS

A sand mound is an on-site sewerage disposal system elevated above the natural soil surface. The mound system, on average is about 35 feet wide, 90 feet long, and 5 feet high, can sometimes be used to overcome site limitations which would preclude the use of other traditional, underground trench type sewage disposal systems. Such site limitations include high water tables and shallow soils over bedrock. A sand mound system cannot be used unless the requirements for slope, permeability, and other design features are satisfied. However, there are properties that can develop using mound systems that could not be developed using conventional underground "trench" systems. For example, where a trench system could not be approved anywhere on a 250 acre farm near Poolesville, sand mounds systems might allow the approval of three houses.

Assuming an equal number of houses and septic systems, sand mounds are more environmentally friendly than traditional septic systems. The sand provides a medium where aerobic bacteria can digest sewage effluent efficiently. Soil below the mounds provide for additional water treatment. There are no documented failures of sand mounds in Montgomery County. The maintenance of sand mounds is very similar to that of traditional septic systems.

Trench systems are the first choice of developers when they can accommodate the same number of units as sand mounds. Trench systems are invisible to the casual observer. A sand mound costs approximately \$30,000 while a trench system costs approximately \$10,000. Where landowners know the limited suitability of their soils for trench systems, they may choose to use sand mounds to avoid excessive perc testing. Although successful sites for sand mounds can be challenging to find, the sites for trench system are more difficult to find than sites for sand mounds. Because a sand mound can function in more areas than trench systems, the technology offers more options for the location of lots on any given property.

BACKGROUND ON ZONING STRATEGIES THAT RELY ON SEWER

The Planning Board and Council in selecting zones have historically considered the availability of sewer and the feasibility of septic systems in determining the appropriate zoning for land in the rural zoning. Where public sewer is available, the zoning is generally set at the maximum density intended. In those zones where sewer is not generally available (the RDT zone, the Rural zone, the Rural Cluster zone, and the RE-2 zone (2-acre zoning)), the ability of the land to perc has been considered as part of the zoning/density decision. Where the soils are poor, the zoning has typically been set at higher density than desirable over the entire property on the assumption that the full density will not be achieved. This was done to provide some flexibility for property owners with difficult soils to locate units where feasible on smaller lots and to avoid an unnecessarily complex zoning pattern.

It is important to understand that zoning strategy was used extensively outside the RDT zone. The use of sand mounds or other previously unanticipated technologies could significantly increase density over that projected in the County's residential wedge and even in suburban communities, particularly in areas zoned RE-2. There are close to 2,000 acres of RE-2 land, 98 percent of which are not served by public sewer. The average lot size for those RE-2 properties not served by public sewer is 0.22 acres, approximately half of what is theoretically allowed. If these properties could build at their theoretical maximum, the density could double, resulting in approximately 400 additional houses. (It is important to note that using sand mounds does not automatically allow for full build-out since there is no assurance that all RE-2 land will perc even for sand mounds.) The Group's findings and recommendations on this matter may therefore be particularly relevant to land outside the Agricultural Reserve.

Individuals have claimed that the intent of the 1980 Agricultural Master Plan was to limit the use of septic systems as a means to limit achievable density in RDT-zoned land. Council staff does not believe that it would be a productive use of the Group's time to debate whether language in the Master Plan or subsequent actions constitute an intent to either limit density to less than one unit per 25 acres or to permit it, but instead recommends that the Group focus on the what the policy should be going forward.

RELEVANT LAWS, REGULATIONS, AND POLICIES

It is unclear whether current law permits the County to limit the use of sand mounds since current state law permits sand mounds (i.e., does the state law pre-empt the County from enacting a law that prohibits or limits the use of sand mounds). Council staff recommends that the Group not delve into this complicated legal issue. Rather, Council staff believes the Working Group should first focus on what is the best policy for the County to implement at this stage. Time permitting, the Group can return to this issue, or, alternatively allow the Council to determine the best way to implement the recommendation, including any necessary changes in County or state law.

State Law/Regulation

The Maryland Code discusses sand mounds twice. In one section, the State Code defines a sand mound disposal system as a conventional system for the coastal plain physiographic province¹ and in a different section defines a sand mounds septic system as an innovative/alternative septic system for a grant program.² State regulations define a sand mound system as a “conventional on-site sewage disposal system”.³ State regulations require the County to allow an on-site sewage disposal system if it determines that the site and proposed design can safely dispose of sewage and conform to applicable laws and regulations.⁴ State law also requires Montgomery County to adopt a 10 year water and sewer plan⁵ that is consistent with the applicable master plan.⁶ Relevant sections of state law are attached on © 1-6; relevant sections of state regulations are attached on © 7-9.

County Regulation/Policy

Comprehensive Water Supply and Sewerage Systems Plan

As noted above, State law requires the County to adopt a water and sewer plan that is consistent with all applicable master plans. The latest Comprehensive County Water and Sewer Plan was approved in 2003. While the Water and Sewer Plan does not explicitly mention sand mound systems, it does state that properties in the RDT zone are “not intended to be served by community systems.” The Water and Sewer Plan makes case-by-case exceptions where community service is “logical, economical, environmentally acceptable, and does not risk extending service to non-eligible properties.”⁷ Relevant excerpts of the Water and Sewer Plan are attached on © 9-1 to 12.

1980 Preservation of Agriculture & Rural Open Space Functional Master Plan

The 1980 Function Master Plan recognizes that sewer is one way that has been used to limit achievable density. Therefore, the Plan recommends that a comprehensive “policy regarding the private use of alternative individual or community sewerage systems outside of the sewer envelope.”⁸ Although sand mounds were viewed as alternative in 1980, the Plan does not specifically state that sand mounds are alternative systems. The Plan also made several sewer-specific recommendations, including the following:

- Do not use public sewer service for the entire Study Area within 20 years from the date of adoption.
- Deny public water and sewer service in the RDT zone.

¹ MD Code, Environment Article, § 9-216(a), (b)(1)(iii). Montgomery County is in the piedmont physiographic province.

² MD Code, Environment Article, § 9-1401(b)(2)(i).

³ Code of Maryland Regulations (COMAR), § 26.01.02.01.

⁴ COMAR, § 26.04.02.02(L)

⁵ Maryland Code, Environment Article, § 9-515.

⁶ *Id.*, § 9-505(a)(1).

⁷ Montgomery County Comprehensive Water Supply and Sewerage Systems Plan, page 17.

⁸ Preservation of Agricultural & Rural Open Space Functional Master Plan, page 17 (1980).

- Deny private use of alternative systems in the RDT zone, except for public health reasons.
- Consider some rural communities and villages for alternative systems to increase low-cost housing and for public health reasons.⁹

Relevant portions of the 1980 Functional Plan are on © 13-17.

Montgomery County Regulations

The Code of Montgomery County Regulations (COMCOR) references the specifications set forth in State regulations that a sand mound must meet.¹⁰ The County regulations are not reproduced here, but are attached on © 18-55.

Regulatory History

At the time of the adoption of the Master Plan for the Preservation of Agriculture and Rural Open Space, sand mounds were not a conventional septic system. As noted above, the Plan recommended that innovative systems be prohibited. In 1986, the regulations for the State of Maryland included sand mounds as a conventional system. Montgomery County did not permit sand mounds as a conventional system until executive regulations were amended in 1994. During the initial administration of the executive regulations, sand mounds were a “last resort” option. An applicant had to demonstrate that a trench system would not work before a sand mound system would be considered. Now there are no limitations on sand mounds other than the physical requirements for a workable system. In 2005, a bill was introduced by Councilmembers Perez and Praisner to temporarily prohibit the approval of sand mounds (included in your binders in the Legislation tab at © 13-14). The Council deferred consideration of this bill, pending the report of the Ad Hoc Working Group.

Although other counties in Maryland vary some sand mound specifications, (e.g., percolation and system size) no Maryland County restricts the use of sand mounds for agricultural preservation reasons.

OTHER RELEVANT MATERIALS

Attached on © 56 is a memorandum from the Department of Permitting Services explaining the soil types throughout the County. Attached on © 57-119 is a memorandum for a March 30, 2006 Council Transportation and Environment Committee meeting on the proposed legislation to temporarily prohibit the County from issuing a permit to construct or install a mound septic system. This memorandum has several useful attachments. A summary of the attachments is on © 60.

⁹ *Id.*, at 61-62.

¹⁰ COMCOR, § 27A.00.01.

ACTIVITY UNDER THE EXISTING LAW

Approved Subdivisions and Systems

As of March 2006, the Planning Board has approved 127 preliminary plans in the RDT zone since 1988. Approximately 11% (14) of those subdivisions relied upon sand mound systems either wholly or in part. These subdivisions created 45 single-family lots that could be platted utilizing sand mounds; 18 of those lots now have houses on them. Forty-one of those lots are for new dwelling units; 4 lots are existing dwellings on these properties that utilized a sand mound for a new septic reserve field established as part of the development process. An additional 23 sand mound systems are approved but not constructed. (For perspective on this number, 851 lots have been recorded in the RDT zone since 1978.) Since 1999, 45 sand mounds have been constructed in the County. Of those 45 mounds, 11 of them (or 24%) were for repairs to existing homes.

Sand mound systems are also allowed on lots and parcels that do not need to go through the subdivision process and are not counted in the subdivision numbers. Tenant houses and existing structures may also use sand mounds without going through the subdivision process. The Department of Permitting Services estimates that there are 75 sand mound systems in operation throughout the County in all zones.

POLICY OPTIONS

Although the main considerations before the Group are whether and how to limit sand mounds, the Group may want to spend some time discussing the broad zoning policy question presented below.

Should the County continue to use septic availability as a means of limiting density in lieu of appropriate zoning?

The County's tradition of using septic availability as a means of limiting density has clear consequences – most notably that potential housing yield can change as technologies change. The Group may want to consider whether it should recommend a change in this policy. One option would be to suggest that as future master plans are completed, the Council zone property at the appropriate density and not rely on septic availability on as a tool to limit density. The Group has already discussed the disadvantages of any further downzoning the in the RDT zone, but this strategy may be appropriate in other areas of the County where there has not been a previous downzoning or expectation of achieving full density and where new septic options can significantly increase projected density and change the character of existing residential neighborhoods. Moreover, if future zoning appropriately sets the density of each property, it will not be necessary to limit the use of otherwise acceptable sewer/septic technologies as a zoning strategy. If there were no concern about increased density, the County might encourage sand mounds as a more reliable, environmentally benign technology than traditional trench septic systems.

Options to Limit the Use of Sand Mounds

Currently, Montgomery County does not place any limits on sand mounds other than the physical requirements for a workable system and therefore it would not be possible to make the current policy more permissive. If a change to current policy is warranted, the new policy must either limit or prohibit the use of sand mounds. For the sake of discussion, Council staff proposes to start with the most restrictive alternative and add progressively more accommodating alternatives. Although Council staff has attempted to go from the most restrictive to the least restrictive, it is possible include or exclude some alternatives in combination with some other alternatives (i.e., alternative 2, sand mounds for existing houses, can be used in addition to alternative 5, one sand mound for every parcel).

Group members should note that any policy decision that limits the use of sand mounds could result in a reduction of potential lots and future dwelling units, particularly on land with poor soils. A reduction in the total housing yield may limit fragmentation of agricultural land, reduce landowner equity, and make the construction of child lots unachievable. Limiting sand mounds on lots that would otherwise be developed with housing could also prevent a property owner from using an environmentally superior and more reliable septic option.

(1) **Prohibit Sand Mounds** (and all other technologies newly authorized since 1978)

Results

- Would not provide an option for failed septic systems on existing houses

Comments

Prohibiting sand mounds for existing houses with failing septic system could require a far more expensive option to provide sewer service to the house. If sand mounds are disallowed for usage with homes with failing septic systems, then the County would have to look at other options for repairs. These options would be either utilizing non-conventional sewage disposal technology (which is expensive, restrictive and somewhat experimental) or as last resort, holding tanks (which are also expensive, restrictive, and somewhat of a nuisance). Neither option would be the best for long term viability of our rural housing stock. There does not appear to be any potential benefit from preventing an **existing structure** from using the best technology available.

(2) **Allow sand mounds only for existing houses to replace existing system.**

Results

- Provides a necessary option for existing dwelling units with failing or inefficient septic systems.

Comments

This option would create the opportunity to replace existing problematic systems while not leading to any increase in density. It is limited because it does not grandfather existing approvals that have not started construction. Any house that

has started construction has vested rights in proceeding to completion. Of the 45 sand mounds that have been constructed since 1999, 11 (24%) have been for repairs for existing homes.

- (3) **Allow the same number of sand mounds as potential percs so that the property owner can better locate potential houses.**

Results

- Would not increase the number of potential homes but could result in better placement of houses to preserve land for agricultural uses.

Comments

This option would require the property owner to prove the feasibility of a certain number of percs and then would allow them the use of sand mounds **instead of** trench systems. Since sand mounds are approximately 3 times the cost of trench systems, this option would only be used if there was a significant advantages provided by being able to change the location of the house. For example, if the house could be moved from the middle of a productive field to the edge of the property, it may be worth the additional cost.

- (4) **Prohibit sand mounds for any new approvals but allow existing approved mounds to proceed to construction.**

Results

- permits 23¹¹ more houses than prohibiting all new construction

Comments

This amounts to a “grandfather” provision. As with any such provision, it would be necessary to establish the exact criteria to determine which projects can proceed (e.g., subdivision approval by a certain date). Applicants who do not meet the criteria would likely lobby to have the ability to construct their approved sand mounds. This option allows for those who have already invested significant time and money in the development process to proceed without significantly increasing the total number of homes in the Reserve. This option would not be appropriate if the Group does not support the specific recent approvals of the Planning Board for housing the RDT zone and believes the Council should prevent their construction.

- (5) **Allow sand mound systems for tenant housing**

Results

- allows only housing in support of agriculture to be constructed
- may increase the number of tenant houses

¹¹ This represent the current number of approved, but not constructed, sand mounds.

Comments

Current law does not limit the number of tenant houses on a lot. An affidavit is required to declare that the tenant will be working on the farm. There is no inspection program or other enforcement mechanism to ensure that the tenant is actually working on the farm. (Since current laws and regulations do not prevent tenant houses from being sold to non-tenants immediately after construction, the Group may want to explore this issue at a future meeting.) Allowing sand mounds for tenant housing may support agricultural operations. If there are not further changes in regulations, the availability of sand mounds could increase the potential for abuse of this provision. Of the 45 sand mounds constructed since 1999, three (6.7%) have been for new tenant houses.

(6) Allow sand mound systems for new child lots

Results

- Could increase the number of child lots on land with poor soils. (Staff previously estimated that approximately 200 additional child lots could be created¹², but staff does not have information on the number of potential lots on land that cannot perc. This option could increase the likelihood of achieving child lots on poor soils.)

Comments

This option would most benefit a property owner with children whose property has poor soils. Limiting sand mounds to only those landowners that have children adds to the advantages of owners that qualify for child lots. Land owners without children or whose soils perc would not benefit from this option.

(7) Allow one house with a sand mound system for every X acres

Results

- creates an absolute limit on a per acre basis
- if, for example, a maximum one sand mound for every 100 acres is used, in most cases it will reduce the number of lots that could be created

Comments

This policy is sensitive to the size of landholdings; as property size increases, the number of sand mounds increase. In this way, the policy parallels zoning restrictions and creates a new maximum density for properties that are unable to use trench septic systems. If the acreage standard is high enough, this option would prevent an increase in housing densities over what would be feasible with trench systems. If the standard is set high enough, it would also prevent developments with multiple houses, except on the largest farms.

¹² Number from Child lot Staff Policy Paper, approximately 100 qualifying land owners and average of two lots for each qualifying owner.

A distribution of RDT parcels will help to understand the implications of this option. If, for example, one house on a sand mound is only allowed per 300 acres, there would only be 12 properties that could take use sand mounds.

VACANT RDT PARCELS BY PARCEL SIZE	
Parcel Size in Acres	Number of Parcels
20 - 49	109
50 - 99	101
100-199	76
200-299	26
300-399	10
400 +	2
Total Vacant RDT Parcels	324
The total acreage of these parcels = 32,492	
Total dwelling unit capacity of these parcels = 1,366	

Source: Montgomery County Planning Department
Research and Technology Center

(8) Allow only one sand mound on every property existing in 1980.

Results

- there are approximately 350 vacant parcels in the RDT zone
- this would permit every property owner to take some limited advantage of sand mounds

Comments

This option provides increased likelihood of obtaining at least one house for each property owner. It would be particularly advantageous for small property owners with poor soils who may not otherwise obtain a perc. Limiting each property to only one house would prevent the creation of housing developments with multiple homes on sand mounds. A disadvantage of this option is that it could encourage the development of smaller properties (e.g. 25 acres properties). It would be possible to further limit this option by setting a minimum size for properties entitled to take advantage of this option (e.g., 50 acres).

(9) Allow sand mounds for any minor subdivision (5 or fewer lots on any one parcel)

Results

- Increases the likelihood that parcels 125 acres or less will achieve full zoning density
- Limits the maximum number of units on larger parcels

Comments

This is an alternative that allows some opportunity for all land owners to create new buildable lots using sand mounds. This policy is more permissive for smaller parcels than larger parcels (provided that a minor sand mound subdivision could not be followed by a second trench system subdivision). A disadvantage of this option is that it may result in a proliferation of small subdivisions. This option could either be limited to projects that have already been approved or could apply to future minor subdivisions. If it is to be limited to approved subdivisions it will be important to determine the criteria for participation (e.g., approved by x date).

- (10) **Incentive-based approach.** This approach would allow a sand lot in exchange for some other desired outcome such as following design standards to minimize the fragmentation of farmland.

Results

- It is unclear how many additional sand mounds would be used under this strategy.

Comments

While the use of sand mounds may support other policy objectives, it is difficult to judge the merits of this option without full understanding of the tradeoffs and to what extent this would result in additional density. The use of sand mounds as an incentive may or may not be appropriate depending on the specific circumstances.

- (11) **Do not set fixed standards for when sand mounds are allowed and instead determine it on a case by case basis.** Under this option a new group or existing Board or Committee would review each application for sand mounds and make a decision. Some general guidelines would need to be established to enable the group to make decisions. These guidelines will determine whether this option is more or less restrictive than the others listed above.

Comments

This option provides the flexibility to deal with the unique circumstances of individual property owners and special hardship cases. The disadvantages are that it would involve the creation of an ongoing administrative process and present the approving Board or Committee with difficult choices. It is not possible to estimate how many sand mounds might be approved under this option (unless very strict guidelines are created).

- (12) **Allow sand mounds for any new or existing development (existing policy)**

Results

- no change from existing laws or regulations

- the maximum unbuilt zoning capacity in the RDT is 1,400 dwelling units (however some proportion of those houses could go forward on trench systems and some could not be constructed even with sand mounds)

Comments

This is easiest policy to implement. No change in law or regulation is required. There may still be some properties that cannot achieve the maximum density permitted by zoning due to soil conditions. The major disadvantage of this option is that it is likely to provide more development than would be allowed with trench systems and therefore could result in additional fragmentation of farmland.

Combination of Options

Most of the above options except the two extremes can be implemented in combination with each other. Although there are numerous potential combinations, one option the group may want to consider as a starting point for discussion is the following:

Allow sand mounds

- In all situations that would **not** increase the number of houses such as to replace a failing septic system serving an existing house or where there is a proven perc and the sand mound would allow greater flexibility in locating the house.
- For previously approved projects
- For new development: one dwelling unit may be served by a sand mound on every property 50 acres or greater with an additional house served by a sand mound for each additional 100 acres after the first 50 acres.

RELATIONSHIP TO OTHER GROUP ISSUES

Child Lots

Sand mound systems allow more lots to be created than could be approved through trench septic systems. However, it still may not permit full zoning density. Generally, the fewer restrictions that are placed on sand mounds, the more likely a property owner will be able to create all eligible lots. A special provision to allow sand mounds only for child lots could increase the equity of a landowner with children whose property has poor soils.

Building Lot Termination Program

Restrictions on the use of sand mounds will decrease the number of lots that would need to be purchased under a building lot termination program, thereby reducing the cost of that program. Restrictions on sand mounds could also limit the market value of property and may impact whether a landowner would choose to preserve their land through the BLT program.

Document 1 of 1**Source:**

Maryland Code/ENVIRONMENT /TITLE 9. WATER, ICE, AND SANITARY FACILITIES/SUBTITLE 5. COUNTY WATER AND SEWERAGE PLANS /§ 9-505. Same - Contents; recycling reductions; effect of increase in population; regional plans.

§ 9-505. Same - Contents; recycling reductions; effect of increase in population; regional plans.

(a) *Required contents.*- In addition to the other requirements of this subtitle, each county plan shall:

(1) Provide for the orderly expansion and extension of the following systems in a manner consistent with all county and local comprehensive plans prepared under § 3.05 of Article 66B, § 5 (X) of Article 25A, § 13 of Article 25B, and § 7-108 of Article 28 of the Code:

(i) Community water supply systems and multiuse water supply systems;

(ii) Community sewerage systems and multiuse sewerage systems; and

(iii) Solid waste disposal systems and solid waste acceptance facilities;

(2) Provide for the sizing and staging of facilities construction that is consistent with the county plan;

(3) Show compliance with paragraphs (1) and (2) of this subsection by using graphic and tabular information;

(4) Provide:

(i) For sewage treatment facilities that are adequate to prevent the discharge of any inadequately treated sewage or other liquid waste into any waters; or

(ii) Otherwise for safe and sanitary treatment of sewage and other liquid waste;

(5) Provide for facilities that are adequate to treat, recover, or dispose of solid waste in a manner that is consistent with the laws of this State that relate to air pollution, water pollution, and land use;

(6) Contain adequate information about:

(i) The existing sewage treatment capacity in each drainage basin or sewage treatment plant service area in the county;

(ii) The present level of use of sewage treatment plants in each drainage basin; and

(iii) Projections for use of sewage treatment plant capacity based on:

1. Outstanding building permits and subdivision plats if the county has subdivision authority; or

2. Zoning commitments if the county does not have subdivision authority;

(7) Taking into account all relevant planning, zoning, population, engineering, and economic information and all State, regional, municipal, and local plans, describe, with all practical precision, those parts of the county that reasonably may be expected to be served in the next 10 years by any:

(i) Community water supply system;

(ii) Multiuse water supply system;

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- (iii) Community sewerage system;
- (iv) Multiuse sewerage system;
- (v) Solid waste disposal system; and
- (vi) Solid waste acceptance facility;

(8) Set procedures for identifying and acquiring, on a time schedule that conforms to the time requirement in paragraph (7) of this subsection, any rights-of-way or easements that are necessary for any:

- (i) Community water supply system;
- (ii) Multiuse water supply system;
- (iii) Community sewerage system;
- (iv) Solid waste disposal system; or
- (v) Solid waste acceptance facility;

(9) Taking into account all relevant planning, zoning, population, engineering, and economic information and all State, regional, municipal, and local plans, describe, with all practical precision, any parts of the county in which it is not reasonably foreseeable to have service in the next 10 years by any:

- (i) Community water supply system;
- (ii) Multiuse water supply system;
- (iii) Community sewerage system;
- (iv) Multiuse sewerage system;
- (v) Solid waste disposal system; and
- (vi) Solid waste acceptance facility;

(10) Set a time schedule and a proposed method for financing the construction and operation of each planned:

- (i) Community water supply system;
- (ii) Multiuse water supply system;
- (iii) Community sewerage system;
- (iv) Solid waste disposal system; and
- (v) Solid waste acceptance facility;

(11) Set forth the estimated cost of constructing and operating each planned:

- (i) Community water supply system;
- (ii) Multiuse water supply system;
- (iii) Community sewerage system;

②

(iv) Solid waste disposal system; and

(v) Solid waste acceptance facility;

(12) Indicate:

(i) Any source of supply from the waters of this State;

(ii) The approximate amount of water to be withdrawn from the waters of this State; and

(iii) The quantity and quality of waste to be discharged into the waters of this State;

(13) Describe, in accordance with the provisions of this subtitle, each area in the county where:

(i) A community water supply system must be provided;

(ii) A multiuse water supply system may be installed and used;

(iii) An individual water supply system may be installed and used for an interim period until a planned community water supply system is available;

(iv) An individual water supply system may be installed and used indefinitely;

(v) A community sewerage system must be provided;

(vi) A multiuse sewerage system may be installed and used;

(vii) Except as provided in § 9-517 of this subtitle, an individual sewerage system may be installed and used for an interim period until a planned community sewerage system is available;

(viii) An individual sewerage system may be installed and used indefinitely;

(ix) A community solid waste disposal system must be provided; or

(x) A community solid waste acceptance facility must be provided for use by residents of the described area during an interim period until a planned community solid waste disposal system is available;

(14) Except as provided in § 9-515 of this subtitle, provide for amendment or revision of the county plan at least once every 2 years in accordance with a schedule adopted by the Department;

(15) Designate an appropriate agency of the county to be responsible for creating a workable plan:

(i) To keep the environment of the county free of solid waste, including litter; and

(ii) To prevent scenic pollution of both public and private property in the county;

(16) By July 1, 1987, treat each publicly owned community sewerage system as a separate entity for fiscal purposes within the local operating agency;

(17) Document compliance with and report on actions taken and plans to enforce §§ 12-605 and 12-606 of the Business Occupations and Professions Article;

(18) For a county with a population greater than 150,000 according to the latest Department of Planning projections, include a recycling plan by July 1, 1990 that:

(i) Provides for a reduction through recycling of at least 20 percent of the county's solid waste stream by weight or submits adequate justification, including economic and other specific factors, as to why the 20 percent

reduction cannot be met;

(ii) Provides for recycling of the solid waste stream to the extent practical and economically feasible, but in no event may less than a 10 percent reduction be submitted; and

(iii) Requires full implementation of the recycling plan by January 1, 1994; and

(19) For a county with a population less than 150,000 according to the latest Department of Planning projections, include a recycling plan by July 1, 1990 that:

(i) Provides for a reduction through recycling of at least 15 percent of the county's solid waste stream or submit adequate justification, including economic and other specific factors, as to why the 15 percent reduction cannot be met;

(ii) Provides for recycling of the solid waste stream to the extent practical and economically feasible, but in no event may less than a 5 percent reduction be submitted; and

(iii) Requires full implementation of the recycling plan by January 1, 1994.

(b) *Use of prisoners.*- A plan created under subsection (a)(15) of this section may include the use of prisoners from the State correctional system or from county jails or detention centers.

(c) *Recycling reductions not maximum percentages.*- The recycling reductions of 20 percent and 15 percent provided in subsection (a)(18) and (19) of this section are not intended to be the maximum percentage that a county can achieve. A county that can practically and economically achieve a higher rate of recycling is encouraged to submit a recycling plan for a higher percentage.

(d) *Effect of increase in population.*- If a county with a population less than 150,000 increases to a population of above 150,000, the county shall have 2 years to revise the recycling plan to be consistent with the recycling goals under subsection (a)(18) of this section.

(e) *Regional recycling plans.*-

(1) The governing bodies of 2 or more counties may adopt a regional recycling plan to comply with subsection (a)(18) or (19) of this section.

(2) A regional recycling plan which otherwise satisfies the requirements of this subtitle for each of the participating counties shall constitute the county recycling plan for each county which participates in the plan.

[1983, ch. 542, § 2; 1984, chs. 255, 798; 1985, ch. 10, § 3; 1988, ch. 536; ch. 647, § 1; 1989, ch. 89; ch. 236, § 4; ch. 540, § 1; ch. 820; 1990, ch. 6, § 13; 2000, ch. 209, § 2; 2002, ch. 19, § 1.]

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Document 1 of 2**Source:**

Maryland Code/ENVIRONMENT /TITLE 9. WATER, ICE, AND SANITARY FACILITIES/SUBTITLE 2. REGULATION BY STATE /§ 9-216. Permitted use of certain sewage disposal systems in coastal plain physiographic province.

§ 9-216. Permitted use of certain sewage disposal systems in coastal plain physiographic province.

(a) *In general.*- In the coastal plain physiographic province of this State, a person may use any of the conventional, on-site sewage disposal systems identified in subsection (b) of this section if:

- (1) The system is recommended by the Department as being the most appropriate; and
- (2) The Secretary does not determine that the installation of the specific proposed system would be prejudicial to public health, safety, and welfare.

(b) *Systems identified.*- Systems that may be used under subsection (a) of this section are:

(1) A septic tank or aerobic treatment system with:

- (i) Standard trench or deep trench subsurface irrigation;
- (ii) A seepage pit; or
- (iii) A sand mound disposal system; and

(2) Any other on-site sewage disposal system that the Department in its regulations states is conventional.

(c) *Regulations of Department.*- The Department may adopt regulations to carry out this section.

[HE § 9-209.1; 1987, ch. 612, § 2.]

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Document 2 of 2**Source:**

Maryland Code/ENVIRONMENT /TITLE 9. WATER, ICE, AND SANITARY FACILITIES/SUBTITLE 14. INNOVATIVE AND ALTERNATIVE SEPTIC SYSTEM GRANT PROGRAM /§ 9-1401. Definitions.

§ 9-1401. Definitions.

(a) *In general.*- In this subtitle the following words have the meanings indicated.

(b) *Innovative and alternative septic system.*-

(1) "Innovative and alternative septic system" means any new, experimental, or nonconventional technology that is added to or used in place of a conventional septic or other on-site sewerage system.

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(2) "Innovative and alternative septic system" includes but is not limited to:

(i) A sand mound septic system;

(ii) A septic tank-sewerage evapotranspiration system that is powered by solar energy;

(iii) A septic tank-filter cloth trench system; and

(iv) Any other innovative on-site sewerage disposal technology that is developed in the future.

(c) *Program.* - "Program" means the Innovative and Alternative Septic System Grant Program.

[1984, ch. 404.]

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26.04.02.01

.01 Definitions.

A. The following terms have the meanings indicated.

B. Terms Defined.

(1) "Aerobic treatment" means a method which utilizes the principal of oxidation in the decomposition of sewage by introduction of air into the sewage or by surface adsorption of air for a sufficient length of time to effect treatment through aerobic bacterial action.

(2) "Approving Authority" means the Secretary of the Environment or the Secretary's designee.

(3) "Aquifer" means any formation of soil, sand, rock, gravel, limestone, sandstone, or other material, or any crevice from which underground water is or may be produced.

(4) "Chemical toilet" means a toilet arranged to receive the nonwater-carried human waste directly into a deodorizing and liquefying chemical in a watertight tank.

(5) "Cistern" means a covered tank in which rain water from roof drains is stored for household or other purposes.

(6) "Community sewerage system" means any system, whether publicly or privately owned, serving two or more individual lots for the collection and disposal of sewage combined with industrial waste, including various devices for the treatment of that sewage.

(7) "Community water supply system" means a source of water and distribution system, including treatment facilities and storage facilities whether publicly or privately owned, serving two or more individual lots.

(8) "Confined aquifer" means an aquifer bounded above and below by beds of distinctly lower permeability than that of the aquifer itself and which contains ground water under pressure greater than that of the atmosphere. This term is synonymous with the term "artesian aquifer".

(9) "Contamination" means the introduction into water of any substance, which may transfer infectious agents or other foreign substances (organic, inorganic, radiological, or biological), in concentrations which may constitute a health hazard or impair the usefulness of the water.

(10) "Controlled hazardous substance" means a substance identified as a hazardous substance by the Department of the Environment pursuant to Environment Article, Title 7, Subtitle 2 (COMAR 26.13.01.03B(26)).

(11) "Conventional on-site sewage disposal systems" are those systems in use which meet current regulations and consist of a septic tank or aerobic treatment with standard trench or deep trench subsurface irrigation or seepage pit on-site disposal or sand mound system.

(12) "County water and sewer plan" means a comprehensive plan and all amendments and revisions of it as required by Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland, for the provision of adequate water supply systems, on-site sewerage and solid waste disposal systems, and solid waste acceptance facilities, throughout the county, whether publicly or privately owned, to include all towns, municipal corporations, and sanitary districts in the county.

(13) "Deep trench" means a trench having perforated or open-jointed pipe or tile trench in which the trench side wall and bottom area is used to calculate the absorptive area in the system design. At least 2 inches of gravel/stone covers the pipe and extends throughout the depth of absorptive side wall to the trench bottom.

(14) "Domestic sewerage" means the liquid or water carried wastes derived from dwellings, including floating homes, business buildings, institutions, and the like, exclusive of wastes derived from industrial processes.

(15) "Floating home" means any vessel, whether self-propelled or not, which is:

(a) Used, designated, or occupied as a permanent dwelling unit, place of business, or for any private or social club, including a structure constructed upon a barge primarily immobile and out of navigation or any structure which functions substantially as a land structure while the same is moored or docked within Maryland; and

(b) Which has a volume coefficient greater than 3,000 square feet based upon the ratio of the habitable space of a vessel measured in cubic feet and the draft of a vessel measured in feet of depth.

(16) "Fall line" means the contact between the unconsolidated sediments of the coastal plain physiographic province and the crystalline rocks of the Maryland Piedmont physiographic province (see the map of "Maryland Physiographic Provinces and Their Divisions" in this chapter), and is approximated by the line connecting the numerous waterfalls and rapids in adjacent streams.

(17) "Flood plain soils" are those soils that are listed in the soil survey as either having a flood hazard or being susceptible to flooding.

(18) "Grease interceptor" means a receptacle designed to collect and retain grease and fatty substances normally found in kitchen or similar wastes.

(19) "Ground water" means underground water in a zone of saturation.

(20) "Hazardous substance" means any matter:

(a) That conveys toxic, lethal, or sublethal effects to plant, aquatic, or animal life, or which may be injurious to human health, or persists in the environment; or

(b) Which causes sublethal alterations to aquatic, plant, animal, or human systems through their cumulative or immediate reactions.

(21) "Holding tank" means a watertight receptacle which is used, or intended to be used, for the collection of sewage.

(22) "Liquid waste hauler" means a person engaged in the business of cleaning and emptying septic tanks, holding tanks, seepage pits, privies, or any other on-site disposal facility.

(23) "Mobile home" means a structure that can be used with or without a permanent foundation, is transportable in one or more sections, built on a permanent chassis, and is designed to be used as a dwelling when connected to the required utilities.

(24) "Mound system" means an on-site sewage disposal system utilizing a raised bed of sand fill with a distribution system constructed so as to distribute sewage equally over the ground surface located under the base of the mound.

(25) "Non-conventional on-site sewage disposal systems" are experimental systems and innovative technologies not currently described in these regulations, that are undergoing evaluation by the Department of the Environment and the Approving Authority.

(26) "On-site disposal" means the disposal of sewage effluent beneath the soil surface.

(27) "On-site sewage disposal system" means a sewage treatment unit, collection system, disposal area, and related appurtenances.

(28) "Percolation test" means a procedure used to determine the percolation rate.

(29) "Permeability" means the capability of a rock, aquifer, or confining bed to transmit waters or air.

(30) "Person" means an individual, partnership, firm, corporation, cooperative enterprise, or a governmental agency.

(31) "Pollution" means any contamination or other alteration of the physical, chemical, or biological properties of any ground or surface waters of this State, including a change in temperature, taste, color, turbidity, or odor of the waters or the discharge or deposit of any organic matter, harmful organism, or liquid, gaseous, solid, radioactive, or other substance onto the ground surface or into any waters of this State that will render the ground or waters harmful or detrimental to:

(a) Public health, safety, or welfare;

(b) Domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses;

(c) Livestock, wild animals, or birds; or

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(d) Fish or other aquatic life.

(32) "Potable water" means water which is free from substances or agents which may cause disease or harmful physiological effects, with the bacteriological and chemical quality conforming to COMAR 26.04.01 and 26.04.04.

(33) "Privy" means an earth or watertight pit or receptacle for receiving nonwater-carried human wastes over which is placed a privy house containing a seat or seats.

(34) "Seepage pit" means a dug or drilled hole extending into porous soils for the purpose of introducing sewage effluent into the ground.

(35) "Septic tank" means a watertight receptacle which receives the discharge of sewage from a building sewer or part of it and is designed and constructed to permit the settling and the digestion of the organic matter by an anaerobic bacterial action.

(36) "Sewage" means water-carried human, domestic and other wastes and includes all human and animal excreta.

(37) "Sewage treatment unit" means a device designed and constructed to receive sewage and to provide treatment to reduce organic and inorganic matter and includes septic tanks, aerobic treatment units, or any other approved devices.

(38) "Sewer" means a pipeline which carries sewage and is designed to exclude stormwater, surface water, and ground water.

(39) "Soil survey" means the scientific inventory of soil maps, soil unit descriptions, classification in the national system, and interpretation for use, as conducted by the National Cooperative Soil Survey by the United State's Department of Agriculture, Soil Conservation Service, in cooperation with the Maryland Agricultural Experiment Station.

(40) "Spring" means a source of water issuing from the ground, rock formation, fracture, onto the land, or into a body of water.

(41) "Standard trench" means a trench having at least 6 inches of gravel or stone beneath and at least 2 inches over the perforated or open-jointed pipe or tile and is a trench in which only the bottom area is used to calculate the absorptive area in the system design.

(42) "Subsurface irrigation" (tile field) means the process of on-site sewage disposal in which the sewage effluent is applied to land by distribution beneath the surface through perforated or open-jointed pipes, or tiles laid in trenches.

(43) "Unconfined aquifer" means an aquifer not bounded above by a bed of distinctly lower permeability than that of the aquifer itself and containing ground water under pressure approximately equal to that of the atmosphere. This term is synonymous with the term "water table aquifer".

(44) "Unconsolidated material" means uncemented soil and sediment material having not more than 70 percent coarse fragments (greater than 2mm) by weight or 50 percent coarse fragments (greater than 2mm) by volume. Volume estimation shall be made by visual comparison with a standard chart.

(45) "Water supply system" means all sources of water which are or may be used as potable water and includes wells, springs, cisterns, or other sources and their appurtenances, such as, pitless adaptors, pumps, pressure tanks, water lines, and treatment and storage facilities.

(46) "Well" means any hole made in the ground to explore for ground water, to obtain or monitor ground water, or to inject water into any underground formation from which ground water may be produced.

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two or more units per acre (R-200) density is discouraged wherever possible; in cases where such service is approved, the development plan must provide adequate protection for ground and surface waters as discussed in Subsection e. of this policy.

2. General Policies for Community Sewer Service -- Land zoned for moderate to high development densities of two or more units per acre (R-60, R-90, R-200, etc.) is intended for sewer service from community sewerage systems. Where local area master plans recommend cluster-option development in zones with lower average lot yields (i.e., RE-1 or RE-2C Zones), and where clustered lot sizes are generally comparable to those in moderate and high-density zones, the provision of community sewer service is consistent with this plan. In the County's Zoning ordinance, two cluster-option zones also specifically call for the provision of community sewer service: the Low-Density Rural Cluster (LDRC) and Rural Neighborhood Cluster (RNC) Zones. Development occurring within these zones using the appropriate cluster option is intended to use community sewer service. The requirements of the RNC Zone allow for the consideration of community service for larger "conservancy" lots within the clustered subdivision where DEP and M-NCPPC staff concur that such service is appropriate, generally due to its proximity to community service. Where the provision of community sewer service is contingent upon the use of a cluster development option, service area changes will generally be conditioned on the approval of subdivision plans using those cluster options.

This plan recognizes that some rural areas of the County with moderate-density zoning (R-200, RMH-200, etc.) may be beyond the logical and economical reach of existing or planned community service. These areas will be served by individual systems. Areas zoned for lower-density residential development (RE-1, RE-2, etc.) are also intended to be served by individual systems.

Local area master and sector plans may recommend exceptions to the general policies contained in this Section (see Section II.E.1.).

3. Water and Sewer Service Policies for Non-Residential Zoned Areas -- The preceding sections focused on policies related to residential zoning and development densities. For areas zoned for commercial and industrial development, the provision of community water and sewer service or the use of individual on-site systems shall be generally consistent with the type of service used for adjacent or nearby residential development.

Areas zoned for rural development, the five-acre (Rural or RC/non-cluster) and twenty-five acre (Rural Density Transfer (RDT) zones, are generally not intended to be served by community systems. However, case-by-case exceptions can be considered where community service is logical, economical, environmentally acceptable, and does not risk extending service to non-eligible properties. Subsequent policies included in Section II.F. identify the conditions under which these exceptions can be considered, including public health problems, public facilities, properties abutting existing mains, etc..

4. Consistency with Comprehensive Planning Policy -- Water and/or sewer service should be extended systematically in concert with other public facilities along the corridors as defined in the General Plan, to accommodate growth only in areas covered by adopted local area master or sector plans. Guidance for the type, amount, location and sequence of growth is contained in the comprehensive planning policies of the County as adopted by the County Council. These policies are expressed in detail in the General Plan and the various master and sector plans which constitute amendments to the General Plan. Various functional plans, such as the Water and Sewer Plan, should be consistent with these comprehensive planning policies. In addition, the Water and Sewer Plan should consider other adopted or proposed policies of various agencies affecting land use, including guidelines for the administration of the Adequate Public Facilities Ordinance.

This Plan intends that water and sewer service decisions should follow and implement the land use and development guidance established in the County's General Plan and local area master plans. A variety of factors influence policy decisions concerning the density or type of development for a particular area: overall land use guidance; transportation and school capacity; environmental protection; local and county-wide housing and commercial demand; compatibility with existing development; and suitability for individual, on-site systems. The proximity of water and/or sewer mains to an area of the county, also one of these factors, should not serve as the primary driver of these policy decisions. The availability of community service can

the Water and Sewer Plan in June 1990 (under CR 11-1953); the Council reviewed and approved some current local area master plans prior to the introduction of this policy. The decision to extend or restrict water service should focus on conformance with master plan land-use and development recommendations, rather than on generalized water service areas identified in these older master plans. Where the provision of water service to large lot areas promotes the land-use and development envisioned by the master plan and meets other economic and environmental standards, the approval of service and/or timing of service is appropriately handled by the adoption of water category changes as part of this plan. Requests for water service to large lot areas may be considered for administrative approval under the "Consistent with Existing Plans" policy (Section V.F.1.a.) in cases where the Planning Board concurs that the extension of service is consistent with the land-use and development policies of the master plan.

c. Extensions should generally be from existing or authorized water mains to allow orderly and logical extensions of the water system.

d. All costs associated with community water service to large lots will be paid by those directly benefiting from the extension of service. To ensure this goal is achieved, both of the following two conditions will apply to extension of water service to large lots:

i. Where intervening lots are subject to a potential front foot benefit assessment for a water main extension, the approving authority may condition a category change request to require the applicant to pay all main extension costs. Under the System Extension Permit (SEP) process, WSSC requires the applicant and/or developer to construct main extensions at their own cost, and then dedicate the extension to WSSC (see Section IV.A.2.). For mains constructed under the SEP process, the intervening lots would therefore not be assessed front foot benefit charges. This policy will prevent intervening lots from subsidizing line extensions benefiting new development.

ii. Funding for large-diameter water lines (16 inches or greater) and/or other improvements to local service line extensions cannot be provided through water and sewerage bonds financed by general water and sewer rates. These improvements must be funded either through the general bond program (with all costs retrievable through front foot benefit assessments associated with the proposed development and developer contributions), or through the SEP process in the WSSC Capital Improvements Program with developer contributions covering 100 percent of the capital costs (as is now required for CIP projects which support only new growth). Note that WSSC requires that only capital-size main extensions more than 2,000 feet in length must be included in the CIP. These policies will prevent extensions to large lot areas from impacting intervening lots and general user rates.

e. The provision of community water service to lower density areas can occur without the provision of community sewer service, requiring the use of individual septic systems. Development with only community water must be consistent with the protection of surface and ground waters. To assure this goal is achieved, DEP may require hydrogeologic studies of proposed development to assess potential impacts to ground and surface water quality from the use of individual sewerage systems. In order to address concerns about the clustering of septic systems in areas where zoning permits lot sizes of less than 40,000 square feet, DEP may, upon consultation with DPS and M-NCPPC, recommend minimum or average minimum lot sizes of 40,000 square feet for new development using community water service and individual sewerage systems. (This lot size is the minimum required for RE-1 zone/non-cluster development.)

This Plan recognizes that some rural areas of the county with moderate-density zoning (R-200, RMH-200, etc.) may be beyond the logical and economical reach of existing or planned community service. These areas will be served by individual systems.

Local area master and sector plans may recommend exceptions to the general policies contained in this Section (see Section II.E.1.).

This plan intends that community water service shall be extended in concert with community sewerage service, unless specific limitations of the community water system make it unreasonable to provide such service. The provision of community water service without community sewer service to areas zoned for

new public facilities, including those facilities which are located outside of the acknowledged community water and/or sewer service areas. DEP may act to approve service area changes for public facilities through the administrative delegation process, Section V.F.1.c.: Public Facilities. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

6. Community Service for Properties Affected by Public Improvements – Community water and/or sewer service may be approved for a property where public infrastructure improvements such as road construction will directly remove, damage, or otherwise adversely affect that property's individual, on-site well or septic system. DEP shall coordinate the review of these requests, as appropriate, with the County's Department of Public Works and Transportation (DPWT). DEP may act to approve service area changes for these properties through the administrative delegation process, Section V.F.1.c.: Public Facilities. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

7. Community Service for Community Development Projects -- Community water and sewer may be provided in support of community development projects which have previously been approved following a public hearing. Such projects may include officially designated renewal and redevelopment areas, neighborhood and community improvement programs, projects approved for productivity housing, rural village programs, historic preservation projects, and housing subsidized by Federal, State or local government, upon the recommendation of the Director of the County Department of Housing and Community Affairs. DEP may act to approve service area changes in these cases through the administrative delegation process, Section V.F.1.e.: Community Development. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

8. Community Service for Transferable Development Right Receiving Areas -- Given the development densities proposed, the provision of community water and sewer service is generally required for areas zoned as transferable development right (TDR) receiving areas. In cases where the base zoning of the property is not suitable for the provision of community water and/or sewer service (RE-1, RE-2, etc.), the provision of community service shall require Planning Board approval of a preliminary subdivision plan which uses the TDR-development option. DEP may act to approve service area changes in these cases through the administrative delegation process, Section V.F.1.a.: Consistent with Existing Plans. That policy includes an option for holding a joint public hearing for the service area change and the TDR-option preliminary plan. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

9. Community Water Service for Child Lots -- Community water service may be provided to support the subdivision of lots for the children of the owners of qualifying properties. Montgomery County's zoning and subdivision regulations make special provisions for the creation of these lots which are generally located in the more rural areas of the county, primarily in the Rural Cluster, Rural and Rural Density Transfer Zones. The size of the lots to be considered for service under this policy is intended to be in the range of those included in the water service for large lot provisions in Section II.D.1.: between 1 and 5 acres. Approval of a service area change to allow community water service must be dependent on Planning Board approval of a preliminary plan for the proposed child lot. In areas zoned RDT, where child lot cases are handled as minor subdivisions without the preparation of a preliminary plan; service area changes will depend on an M-NCPPC notice to DEP that the subdivision plat is ready for Planning Board approval. DEP may act to approve service area changes in these cases through the administrative delegation process, Section V.F.1.f.: Child Lots.

Water service in these cases is generally intended to be provided from abutting water mains, although water main extensions can be considered where those extensions are consistent with the requirements for large lot development, as previously cited. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

10. Community Service Due to Individual On-Site Systems Regulations Changes -- Community water and/or sewer service, restricted to a single water and/or sewer hookup, may be provided to a parcel or a recorded lot that meets both of the following conditions:

a. The applicant must demonstrate that the lot was recorded by plat on the basis of successful sewage percolation or water supply tests, but due to change in regulation, the lot can no longer satisfy State and County regulations for individual, on-site systems; and

b. Community service can be provided in a cost-effective and environmentally-acceptable manner.

DEP may act to approve service area changes for public facilities through the administrative delegation process, Section V.F.1.d.: Individual Systems Regulations Changes. The provision of community service under this policy shall not be used as justification for the connection of intervening or nearby lots or parcels if they would not otherwise be entitled to connect to community systems.

11. Reverse Category Changes -- The County may approve "reverse" service area changes from categories 1, 3, or 4 to categories 5 or 6 in cases where development established using individual, on-site systems will be unlikely to need community service within the lifetime of the Plan. Although DEP staff shall be primarily responsible for identifying areas eligible for reverse changes, individual property owners may also seek reverse category changes. DEP may act on reverse service area category changes through the administrative delegation process (Section V.F.1.a.: Consistent with Existing Plans). DEP may also act through the administrative process (Section V.F.3.a.) to "update" service area category 1 areas to category 3, to better identify those properties without immediate access to community service.

This Plan recommends against changes from water and sewerage service area categories 1, 3, or 4 to categories 5 or 6 strictly for the purpose of avoiding the assessment of front-foot benefit charges (see Section IV.A.2.b.). Applications for assessment-based reverse category changes shall be addressed by the County Council. Changes in WSSC's assessment procedures now allow for a hiatus on assessments for properties with functioning individual systems which abut mains authorized starting in 1995 regardless of their service area category.

12. Special and Restricted Community Service Areas -- In addition to the preceding policies, the County may also designate specific areas for or restrict specific areas from community water and/or sewer service in order to achieve specific development goals, to promote environmental protection, or to address other special concerns. These areas are shown in Figure 1-F3 and are listed below:

a. **Oaks Landfill Special Water Service Area** -- The County approved the extension of community water service to the vicinity of the Oaks Landfill, located between Mt. Zion and Laytonville, in 1995. The extension of community water service provides public water for approximately 155 existing eligible dwellings in the community surrounding the landfill site. DEP investigated low-level groundwater contamination in the northwestern area of the Oaks Landfill starting in 1992. While the level of contamination was less than the Maximum Contaminant Limits established by the U.S. Environmental Protection Agency under the Safe Drinking Water Act, it remained persistent. Community water service is provided to this vicinity to relieve anxiety in the community and to avoid potential long-term costs due to an extensive domestic well

AGRICULTURAL PRESERVATION STUDY AREA POPULATION HOLDING CAPACITY

The population holding capacity within the Agricultural Preservation Study Area is governed, to a large extent, by the suitability of land to support septic systems as regulated by the Montgomery County Department of Environmental Protection. This policy results in a population holding capacity that is less than the zoned population holding capacity. This "perk" policy is one of the most significant in limiting population density within the Study Area.

Although the population holding capacity is limited by this policy, it is imperative to develop not only land-use recommendations for this area, but a comprehensive public policy regarding the private use of alternative individual or community sewerage systems outside of the sewer envelope.

Current Study Area Population = 46,000 persons¹²

Population Holding Capacity Based on Zone $\bar{3}$ 119,000 persons¹²
(excluding areas 1/2 acre zoning or denser) (35,000 D.U.)

Population Holding Capacity Based on Septic
System Suitability = 55,000 persons¹²
(excluding areas 1/2 acre zoning or denser)¹³ (20,000 D.U.)

EFFECT OF SEWER CAPACITY

The threat of moratoria, time horizon for proposed sewage plants, and land costs within the water and sewer envelope cause developers to seriously consider the Agricultural Preservation Study Area for development on septic systems.

¹² Based upon 1977 Census Update Survey, average household size of 3.48 in the Rural Zone, 2 percent vacancy rate.

¹³ Areas with higher than 1/2 acre densities will probably be served by public sewer and are generally located in the growth areas, thereby distorting the impact of this chart.

CHAPTER VI: FARMLAND AND RURAL OPEN SPACE PUBLIC SERVICE GUIDELINES



In addition to the land use and zoning recommendations delineated in this Plan, there are public service guidelines that should be addressed so that the retention of farm land is supported by the instruments of public policy. A coordinated program of public service guidelines involving primarily water and sewer service and transportation facilities, designed to guide development, are highlighted in this chapter, as well as guidance in understanding the preservation program's effect on housing and rural communities.

WATER AND SEWERAGE GUIDELINES

Water and sewer service are two of the most significant public services that control the timing of development. The recommended guidelines are designed to permit little, if any, additional service within the Study Area with the exception of the growth areas--Damascus, Clarksburg, Olney, and Poolesville. The selective and limited expansion of public water and sewer service will support and help implement the preservation recommendations expressed in this Plan. Service to the Agricultural Preservation Study Area is shown on the Existing Public Resources Maps.

Recommended Water and Sewerage Guidelines

- Consistent with recommendations in the Fifth Annual Growth Policy Report, the entire Study Area (Policy Area I) is not recommended for public sewer service within the next 20 years, with the exception of Clarksburg.

- Deny public water and sewer service to areas designated for agricultural preservation that utilize the Rural Density Transfer Zone (RDT).

- Endorse existing policy to relieve public health problems beyond the sewer envelope by permitting publicly sponsored individual or community system installation under controlled conditions.
- Continue investigation of alternative publicly sponsored individual and community systems for application in areas experiencing community-wide or scattered public health problems beyond the sewer envelope.
- Deny private use of alternative individual and community systems in all areas designated for the Rural Density Transfer Zone (RDT).
- Study the possible application of private alternative individual and community systems in rural open space areas.
- Develop water and sewer policies for the Damascus area that complement its critical location within the Agricultural Reserve as part of the Damascus Master Plan update process.
- Study those that rural communities and villages for those should be considered for publically sponsored alternative individual and community systems to help increase the amount of low and moderate cost housing and solve related health problems.
- Support the water and sewer recommendations expressed in the Olney Master Plan and Poolesville Vicinity Master Plan.

TRANSPORTATION GUIDELINES






The transportation guidelines are designed to avoid artificially stimulating the market for conversion of farmland to residential development. The system should provide facilities that meet, primarily, the safety and maintenance needs of an active agricultural community. To this end, transportation facilities should be limited so as to lessen the desirability of development particularly in the Agricultural Reserve and the areas recommended for Rural Open Space. The alignments of freeway, major, arterial roadways and scenic setbacks are illustrated on the Zoning and Highway Plan. At the time of development, the classification and alignment of primary roads will be determined.

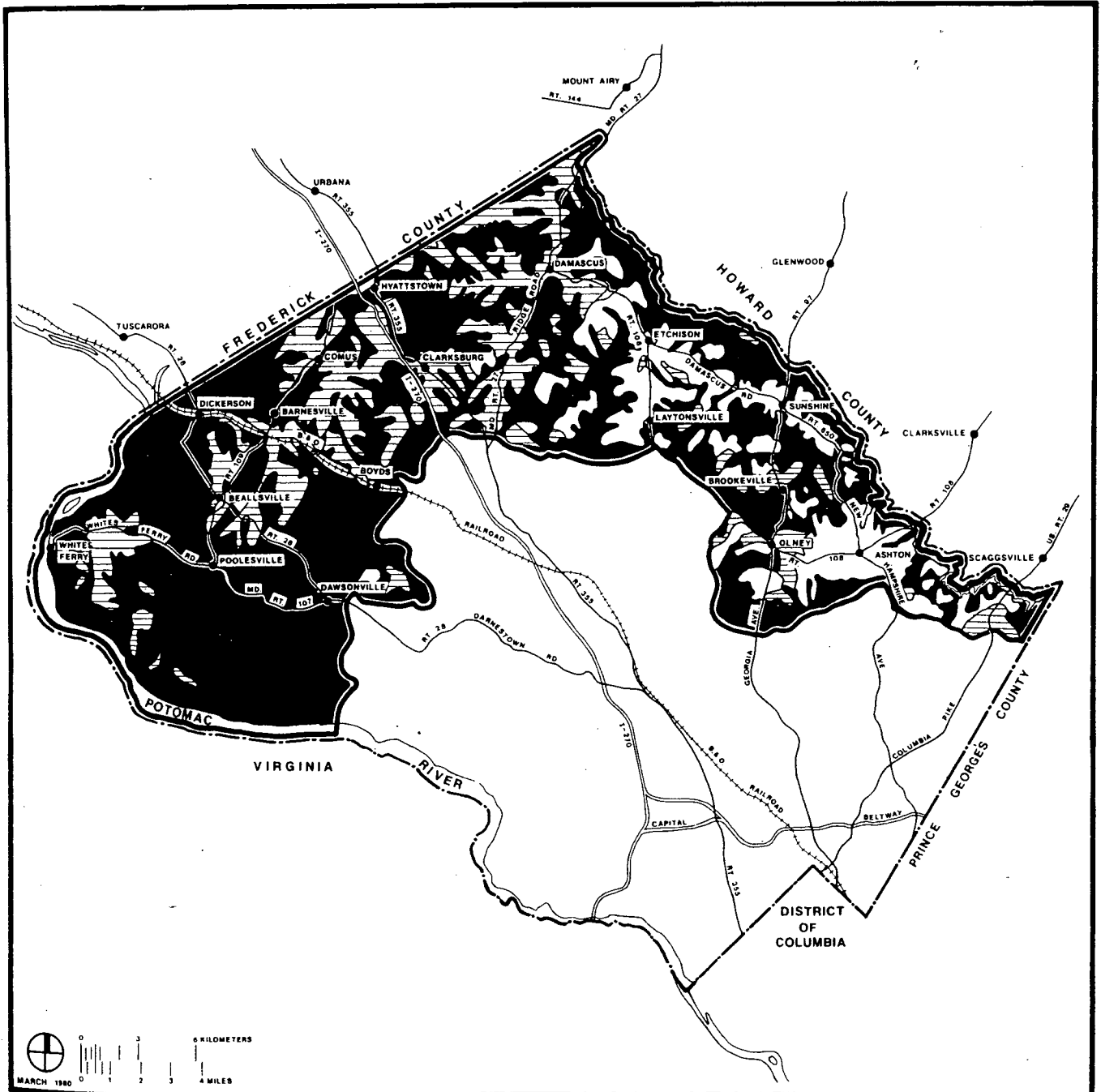
Right-of-way requirements for roadways are generally based on the need to provide adequate width to accommodate typical ultimate paving cross sections plus abutting features such as sidewalks, drainage, and utilities. In most areas in the Agricultural Reserve and Rural Open Space, the ultimate paving cross section may never be required. However, the extra right-of-way should not be discarded because it can serve very important auxiliary needs.

If sufficient right-of-way is available as a result of dedication through the subdivision process, many highway safety projects can be accomplished without the cumbersome and expensive process of acquiring right-of-way. Safety projects which are particularly important on rural roadways, would include reduction of crest vertical

SEPTIC SYSTEM SUITABILITY







Legend:

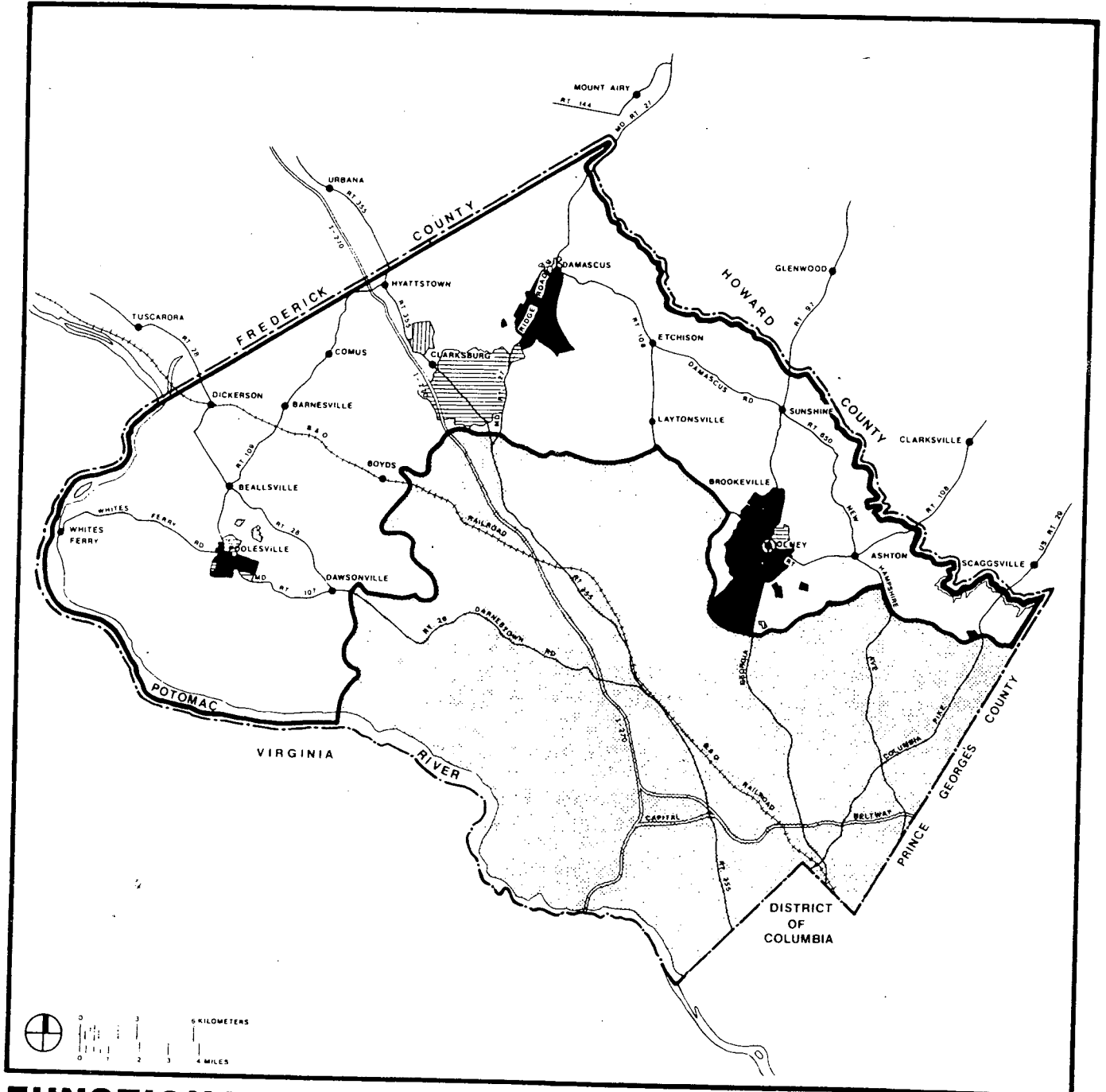
-  Montgomery County Boundary
-  Study Area Boundary
-  Few Limitations for Septic Systems
-  Moderate Limitations for Septic Systems
-  Severe Limitations for Septic Systems



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

EXISTING PUBLIC RESOURCES SEWER SYSTEM

- Legend:
-  Montgomery County Boundary
 -  Study Area Boundary
 -  S-1 & 2 Service existing or imminent.
 -  S-3 Service provided within 2 years.
 -  S-5 Service provided within 7-10 years.
 -  S-6 No planned service in balance of study area.



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

CHAPTER 27A. INDIVIDUAL WATER SUPPLY AND SEWAGE DISPOSAL FACILITIES — REGULATIONS

COMCOR 27A.00.01 On-Site Water Systems and On-Site Sewage Disposal Systems

COMCOR 27A.00.01 On-Site Water Systems and On-Site Sewage Disposal Systems

27A.00.01.01 Definitions

Absorption area - the land surface area established to renovate the liquid from a septic tank or sewage treatment unit by infiltration of the liquid into soil and percolation through the soil.

1. Initial Absorption area is the component of the absorption area which is established to provide the initial on-site disposal system or trench after the initial permit is issued.

2. Recovery Absorption area is that portion of the absorption area available for the future establishment of absorption trenches in the event the initial or other recovery absorption trenches have failed.

3. Total Absorption area is that surface area which is equal to the sum of the initial absorption area and all recovery absorption areas or a minimum useable surface area of 10,000 square feet, whichever is greater.

Approving Authority - the County Health Officer or designee.

Bedroom - any room designated as such and any other room, with closet space, which could be utilized as a private sleeping area, or any other room determined by the Approving Authority as capable of being used for sleeping purposes.

Board - the Montgomery County Planning Board of the Maryland-National Capital Park and Planning Commission.

Chemical Toilet - a toilet arranged to receive non-water carried human waste directly into a watertight tank containing deodorizing and liquefying chemicals.

Commission - the Maryland-National Capital Park and Planning Commission.

Community Sewerage System - a system whether publicly or privately owned, serving two or more individual lots for the collection and disposal of sewage and/or industrial waste including various devices for the treatment of that sewage and/or industrial waste.

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Community Water Supply System - a source of water and a distribution system, including treatment facilities and storage facilities, whether publicly or privately owned, servicing two or more individual lots.

Contamination - the introduction into water of any substance, which may transfer infectious agents or other foreign substances (organic, inorganic, radiological, or biological), in concentrations which may constitute a health hazard or impair the usefulness of the water.

County Plan - a comprehensive plan, with all amendments and revisions, for the provision of adequate water supply systems and sewage and solid waste disposal systems and solid waste acceptance facilities throughout the County to include all towns, municipal corporations and sanitary districts, issued in accordance with the Environmental Article, Title 9, Subtitle 5, Annotated Code of Maryland, 1987 and successor laws and amendments.

Covenant - a legal instrument describing an interest in land which the owner grants to himself during the subdivision process to record an interest on one or more lots which serve another lot. An example is the location of an absorption area or part of an absorption area for one lot on a contiguous lot. The covenant becomes an easement upon sale of the property and is recorded on the deed for the property which is filed in the land records. See "easement" defined below.

Development - the act of building structures and installing site improvements, both public and private.

Developer or Subdivider - an individual, partnership, or corporation (or agent) that undertakes the subdivision of land or the activities covered by Chapter 50, Subdivision of Land, Montgomery County Code, 1984, as amended, particularly the drawing up and submission of a subdivision plat showing the layout of the land and required public improvements, including all persons involved in successive stages of the project, even though such persons may change and ownership of the land may change. Each term includes the other.

District or Regional District - the Maryland-Washington Regional District, established by Article 28 of the Annotated Code of Maryland.

Easement - a legal instrument describing an interest in land owned by another which entitles the holder of the easement to a specific limited use. The easement must run with the land and be included in any conveyance of the land. The easement area must be included within the dimensions and areas of the lots or parcels through which the easement may run. The easement must not be separated from the lots and parcels as in the case of a dedicated right-of-way.

Easement, slope - an easement to permit the creation and maintenance of slopes necessary to stabilize construction or to stabilize lands adjacent to construction.

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Flood plain - that area:

1. Defined on the adopted and published official 100-year flood plain map for the watershed or, if one has not yet been adopted for that watershed;
2. Which would be inundated by storm water runoff equivalent to that which would occur on the average of once in every 100 years after full development of the watershed;
or
3. Which is designated as flood plain soil in the Soil Survey, Montgomery County, Maryland as either having a flood hazard or being susceptible to flooding.

Grease Interceptor - a receptacle designed to collect and retain grease and fatty substances normally found in kitchen or similar wastes and which is approved by the *Washington Suburban Sanitary Commission.

*WSSC Regulation 514.3, Automatic Grease Recovery Devices - Food Handling Establishments.

Ground water - water underground in a saturation zone under atmospheric pressure.

Habitable Space - Any room meeting the requirements in the Building Officials Conference of America Code as approved by the Montgomery County Council for sleeping, living, cooking or dining purposes, excluding such places as closets, pantries, bath or toilet rooms, hallways, laundries, storage spaces, utility rooms and similar spaces, and excluding rooms which are not heated.

Holding tank - a watertight receptacle which is used for the collection and holding of sewage but does not include treatment and disposal.

Improvements, public - any of the following: roads and streets, alleys, grading, road pavement, curbs and gutters, sidewalks, crosswalks and pedestrian paths, water mains, sanitary sewer lines, water supply and sewage disposal systems, storm sewer lines and drainage structures, curb returns, sidewalk and driveway entrances in right-of-way, guard rails, retaining walls, sodding, planting, monuments, and street lights.

Innovative and Alternative On-Site Sewage Disposal System - an experimental system and/or innovative technology not currently described in these Regulations but described in State of Maryland Regulations or policy letters.

Lot - a part of a subdivision or a parcel of land used as a building site or intended to be used as a building site, whether immediate or future, which would not be further subdivided.

Lot area - the total useable area which is included within the rear, side, and front

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lot lines, but excluding those areas in an existing or proposed public road; areas having land slope exceeding 25 percent; areas located within the 100-year flood plain; and areas contained within easements.

Lot width - the horizontal distance between the side lot lines measured at the front building restriction line or front setback line.

Mound system - an on-site sewage disposal system utilizing a raised bed of sand fill with a distribution system conducted so as to distribute sewage equally over the ground surface located under the base of the mound.

New construction - a new structure or building, a replacement structure, or an addition(s) or extension(s) of an existing structure. New construction does not include an addition to provide bathroom facilities for the installation of indoor plumbing for dwellings without indoor facilities. The term "new construction" is independent of whether the construction serves a current or new use and applies when designated by the Department of Environmental Protection for building permits.

Non-Community Water Supply - a water system for the provision of piped water to the public for human consumption to serve a transient or non-transient population including systems for motels, restaurants, campgrounds, schools, and other establishments served by a separate water supply system.

On-Site Sewage Disposal System - a sewage treatment unit, collection system, disposal area and related appurtenances all contained on the lot or parcel it serves or with respect to the disposal area only on other lots by easement as approved by the Approving Authority.

On-Site Water Systems - a source of water and the components of the delivery system serving a single lot.

Percolation Rate - the rate at which water moves through undisturbed soil, expressed as the number of minutes for a measured water level in a prescribed hole to drop one (1) inch.

Percolation Test - a field procedure used as part of a site evaluation to determine percolation rate.

Person - any institution, individual, partnership, governmental entity, public or private corporation, cooperative enterprise, or other entity.

Potable Water - water which is free from impurities in amounts sufficient to cause disease or harmful physiological effects and which conforms with the State of Maryland Safe Drinking Water Standards.

Plan - a drawing of a proposed subdivision containing information as required by

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these and other applicable County and State regulations for review by the Approving Authority.

Privy - an earth or watertight pit or receptacle covered by a privy house for receiving non-water carried human body wastes.

Record Plat - a completed drawing as required for recordation in the land records of Montgomery County Maryland, which contains all pertinent information required by these Regulations and the specifications of Chapter 50, Montgomery County Code 1984, as amended.

Right of way - a strip of land occupied or intended to be occupied by a road, crosswalk, railroad, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, or for other special use. The usage of the term "right-of-way" for land platting purposes will mean that every right-of-way established and shown on a record plat is to be separate and distinct from the lots or parcels adjoining such right-of-way, and not included within the dimensions or areas of such other lots or parcels. Right-of-ways intended for roads, crosswalks, water mains, sanitary sewers, storm drains or other use involving maintenance by a public agency must be dedicated to public use by the maker of the plat on which such right-of-way is established.

Scavenger - any person engaged in the business of cleaning and emptying septic tanks, holding tanks, privies or any other sewage disposal facility.

Septic setback line - a line which indicates the required distance separation between the absorption field and any improvements.

Sewage - water-carried human, domestic, and other wastes including all human and animal excreta.

Sewage disposal trench - a linear excavation of variable depth in the absorption area filled with gravel or stone with a perforated or even-jointed pipe or tile inserted in the top 6 inches of gravel or stone to distribute the effluent. The pipe or tile is covered with at least 2 inches of gravel or stone.

Sewage treatment unit - a device designed and constructed to receive sewage and to provide treatment to reduce organic and inorganic matter. Units include septic tanks, aerobic treatment units, or any other proved devices.

1. Septic tank - a watertight receptacle which receives the discharge of sewage from a building sewer, or part of it, and is designed and constructed to permit the settling and digestion of organic matter by an anaerobic bacterial action.

2. Aerobic unit - a watertight treatment unit which receives the discharge of sewage from a building sewer, or part of it, and is designed to digest the organic matter by the mechanical introduction of air to facilitate aerobic bacterial action.



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Sewer - a pipeline which carries sewage and is designed to exclude storm water, surface water, and ground water.

Shared facility - a water or sewerage system which serves more than one lot or more than one user on a single lot with water or sewerage systems located on the individual lots or on parcels owned in common by the users or the controlling authority.

Soil survey - the scientific inventory of soil maps, soil unit descriptions, classification in the national system, and interpretation for use, as conducted by the National Cooperative Soil Survey by the United States Department of Agriculture, Soil Conservation Service, in cooperation with the Maryland Agricultural Experiment station.

Spring - a source of water issuing from the ground, rock formation, or fracture onto the land or into a body of water.

Subdivision - the division of a single tract, tracts, or other parcels of land, or a part of it, into two or more lots, for the purpose, whether immediate or future, of sale or building development. Subdivision includes a change in street lines or lot lines, unless the Approving Authority determines that the change will not adversely affect the safety and adequacy of well sites or sewage disposal areas of the subject lot or adjacent lots. Division of land for agricultural purposes into parcels of more than 3 acres, not involving any new street or easement of access, is not included within the meaning of subdivision.

Water and Sewer Service Category - determines a property's eligibility to receive public water and/or sewer service and indicates the time frame for the County Government and Washington Suburban Sanitary Commission to program utility extensions to serve properties. Category 1 - area served by community system or under construction, Category 2 - extensions of existing community systems in final planning stage, Category 3 - generally service will be provided within 2 years, Category 4 - improvements or construction of community system planned for 3-6 year period, Category 5 - planned to be served in the 7-10 year period, Category 6 - area where there is no planned service.

Well - any hole made in the ground to explore for ground water, to obtain or monitor ground water, to inject water into any underground formation from which ground water may be produced, or to transfer heat to or from the ground or ground water if the hole:

1. Extends more than 20 feet below the surface of the ground; and
2. Is not a well for obtaining geothermal resources under Section 8-8A-01 of the Natural Resources Article, Maryland Annotated Code.

Well pit - a hole or depression in the ground surrounding a casing in which all pumping and other equipment subject to freezing is emplaced.

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27A.00.01.02 General Provisions

A. The requirements of this regulation apply to new on-site water supply and sewage disposal systems, replacements and additions to existing systems to include those necessitated by changes in use and expansions, and any other material change in the use of the system.

B. The Approving Authority must require a connection to a community water or sewage system for new construction when a community water system or sewage system is economically and legally available* to the building to be served.

*Note that in water and sewer service categories 4, 5 or 6 Health Department authorization is required before WSSC can accept requests for service.

C. An on-site water supply or on-site sewage treatment and disposal system must not serve more than one building except when specifically authorized by the Approving Authority.

D. Except for previously recorded lots which have been tested and approved as buildable lots and recorded prior to February 28, 1979, all on-site water systems and on-site sewage treatment and disposal systems must be situated on the property served by that system or on a contiguous lot with the approval of the Approving Authority. A contiguous lot may accept only one additional on-site sewage disposal system or part of an additional system, unless the use of more than one contiguous lot in the total absorption area is approved by the Approving Authority. The Approving Authority must be satisfied that encroachment of an absorption area on a contiguous lot or lots will not contaminate the ground water, potentially cause hydraulic mounding or excessive nitrate loading, or reduce the area necessary for initial and recovery absorption fields for the lots involved. Absorption fields or parts that are located on adjacent lots must be recorded as easements in the land records of Montgomery County, Maryland in a manner satisfactory to the Approving Authority.

E. The connection of area drains, cellar drains, and roof leaders to on-site sewage treatment and disposal systems is prohibited.

F. A person must not occupy, for domestic or business purposes, any dwelling, apartment house, store, or other building located beyond the reach of the public water and sewer system, which is not served by an approved water-carried on-site sewage disposal system and an approved water supply system, unless such systems are not required.

G. When unfavorable hydrologic or geologic conditions may exist, the Approving Authority may require the conduct of hydrologic, geologic, or other evaluations, including drilling of test wells, before approval of a subdivision or issuance of a building permit in order to expand data on the suitability of the site for the installation of on-site water supply and sewage disposal systems. Installation of an individual on-site sewage disposal system, before

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issuance of a building permit on a previously approved lot, may be required if surface or subsurface problems materialize as evidenced by conditions in nearby areas.

H. The Approving Authority must require wells to be drilled prior to the issuance of a building permit in order to assure availability of water supply.

I. An on-site sewage treatment and disposal system is not permitted where in the opinion of the Approving Authority the system may contaminate ground water, well water supplies, surface water supplies, lakes, or in any manner constitute a threat to the public health.

J. The Approving Authority may waive strict application of these regulations for hardship upon written request by a property owner or his designee provided that the public health and safety are assured.

27A.00.01.03 Applications and Permits

A. Prior to any new construction, reconstruction, alteration, or addition to an on-site water supply and/or an on-site sewage treatment and disposal system or any other waste handling method, a written application must be submitted to the Approving Authority for a permit to begin work. Construction must not begin before obtaining the written permit from the Approving Authority.

B. The application and permit requirements of these regulations also apply to the correction of existing malfunctioning sewage or on-site water supply systems.

C. A sewage system permit must be obtained when: the use of an existing building or facility changes because of an increase in the volume of waste, there is an increase in the number of bedrooms, or the composition of the waste entering the system is being changed.

D. Applications for permits must be on a form required by the Approving Authority and must include at least 3 sets of complete site plans, specifications, and supporting data for the desired installations. The site plan must be to a scale of 1 inch = 30 feet, or a scale acceptable to the Approving Authority and must include as minimum information the items listed below:

1. Existing and final topographic contours at no greater than two-foot elevation intervals. The Approving Authority may permit use of larger contour intervals where conditions are judged to adequately show surface configuration.
2. Lot lines showing actual linear footage;
3. All well sites within 100 feet of any lot line. The site plan for lots created by subdivisions after February 28, 1979 must show a primary and two alternate well sites.

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4. All sewage systems within 100 feet of the proposed well(s) site(s);
5. A vicinity sketch on one of the 3 site plans;
6. Buried fuel tanks;
7. Streams, reservoirs, wetlands and flood plains;
8. The sewage treatment unit and total absorption area;
9. Conventional mounds require a 2 compartment septic tank or 2 tanks in series and the location of the pump chamber and equipment, mound and total absorption area.
10. Location of percolation tests to include those for mound systems;
11. Design information for the mound to include sizing, construction, and pump chamber and equipment must be submitted with the application and the name and address of the certified installer;
12. The location and principal dimensions of the proposed building(s);
13. Utility easements, right-of-ways, or utility line locations;
14. Ingress, egress, right-of-ways, and/or driveways;
15. Road easements; and
16. Swimming pools, tennis courts, out-buildings, patios or decks, and all trees to be retained with the initial absorption area.

E. A permit must not be issued unless the project is in conformance with the County Plan.

F. When the Approving Authority is satisfied that the site and the proposed design are acceptable and in conformance with appropriate laws and regulations, the water supply and/or sewage disposal permits must be issued. The permit must indicate the date of expiration and becomes invalid if the authorized work is not commenced within six months of the date of issuance or is suspended or abandoned for a period of six months; provided, that the Approving Authority may, for good cause shown within either of such periods, extend a permit for an additional period not to exceed six months.

G. If the Approving Authority concludes that the proposed design is inadequate or that soil, geologic, or hydrologic conditions jeopardize the safe and proper operation of the proposed installation, a permit to construct must not be issued. The Approving Authority must specify the reasons for denial.

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H. A permit must not be issued if the site upon which the on-site water supply and/or sewage disposal system is to be constructed has been or is being subdivided in violation of the subdivision regulations of Montgomery County, the State of Maryland, or of the Maryland-Washington Regional District within Montgomery County. A permit must not be issued if the building to be served by such sewage disposal system is to be constructed, altered, or remodeled in any way that would constitute a violation of the subdivision regulations or of any applicable zoning, building, health, fire, housing, or other laws or regulations.

I. When a permit is denied, the applicant must be notified in writing within 30 days as to the reason for denial.

J. Prior to the issuance of any permit for an on-site water supply and/or sewage disposal system, the applicant must pay to the county a fee in accordance with the schedule of fees established by the County Executive pursuant to Section 27A-5, title "Permits," of the Montgomery County Code 1984, as amended.

K. Permits for privies and holding tanks may be issued only in accordance with Section IX* of these regulations.

***Editor's note**—see 27A.00.01.09

L. The following criteria will be applied when reviewing building permit applications for improvements to or replacement of existing structures:

1. Major additions of three bedrooms or more or to inside living quarters constituting 50 percent or more of the habitable square footage of the existing structure require that current regulations must be met to include confirmation of an absorption field of not less than 10,000 square feet of useable absorption area to provide for an initial and two replacement absorption trenches. Additional sewage treatment and/or disposal system may have to be added to the existing system to adequately service the proposed addition, and the location of the septic tank confirmed by uncovering it. All septic tanks must be accurately located if the addition requires extension of the foundation or pier footing.

2. Approval of an addition of two bedrooms or less than 50 percent but more than 25 percent of the habitable square footage of the existing living quarters of the structure will depend on one of the following:

a. The existence of a previous permit that indicates adequate initial and recovery absorption areas, accurate location of the septic tank and satisfactory percolation tests. Further testing and proof of adequate absorption area may be required prior to approval of the addition when the Approving Authority determines the information on the permit does not provide a basis for approval, e.g. questionable percolation rates, poor soils, lack of water table information, problems with well water quality in the general area, or other reason that raises an issue of possible ground water contamination.

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b. In the absence of an approved permit on file, satisfactory water table and percolation tests, location and approval of existing septic tank, inspection of absorption area for evidence of failure, and the confirmation of an initial and two recovery absorption areas are required.

3. An addition of not more than one bedroom or less than 25 percent of the habitable square footage of the existing structure not involving encroachment on the sewage disposal reserve area may be approved if an approved permit for the existing system is on file or may require testing if there are questions about adequacy of the system and possible ground water contamination.

4. Reconstruction of a failed system must attempt to meet current standards. The Approving Authority must approve the best system that can be provided without endangering the public health.

5. Systems for replacement of occupied housing which are condemned for human occupancy or destroyed by fire or similar disaster must attempt to meet current standards.

6. When a dwelling which was destroyed by fire or condemned for human habitation is to be replaced on a different lot all requirements of these regulations pertaining to new dwellings must be met.

7. Guest house, bedroom or other habitable space in separate and detached buildings require separate on-site sewage disposal and on-site water supply systems.

8. Pool houses (changing room, showers, toilet, lavatory) may be connected to an existing system if the system meets standards for the dwelling, or it may need to be served by its own system of one initial and two recovery areas as determined by the Approving Authority if bedrooms or rooms that could serve as bedroom and kitchen facilities are involved.

M. In the Rural Density Transfer (RDT) Zone the following criteria must be applied for reviewing building permit applications for improvements to existing dwellings:

1. Major additions of 50 percent or more of existing habitable space or with 3 or more bedrooms require that current regulations be met to include confirmation of an absorption field of 10,000 square feet to provide for an initial and two recovery absorption fields. Additional sewage treatment and disposal systems may have to be added and the existence of the septic tank confirmed by uncovering it.

2. Additions greater than 25 percent but less than 50 percent of existing habitable space with not more than 2 bedrooms, where there is no permit or record indicating adequacy of the existing system, require the absorption area be defined by watertable

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and percolation testing and the existence of septic tank confirmed by uncovering it.

3. Additions less than 25 percent of existing habitable space, not involving more than 1 bedroom, may be approved where there is no record of a failure and a visual inspection indicates the system is operating satisfactorily.

27A.00.01.04 Inspections of On-Site Sewage Disposal Systems

A. The Approving Authority must conduct inspections to determine satisfactory compliance with these regulations.

B. All work governed by these regulations must be made available for inspection at reasonable times at the following stages:

1. The starting point of the initial sewage disposal trench must be established on-site by a registered surveyor prior to construction of the disposal system. The exact location must coincide with the site plan for which the permit was issued and marked by a stake. The stake must remain imbedded until a written installation approval sticker for the on-site system is issued by the Approving Authority. The approval sticker may be left on the site by the Approving Authority.

2. The absorption trenches must be inspected after excavation to final grade and depth, but prior to placement of stone. Shallow absorption trenches less than 30 inches deep requiring 18 inches of stone are exempted from this inspection.

3. The septic tank must be inspected after its outlet pipe is connected to the sewage disposal trenches, and prior to the tank, pipe, and trenches being backfilled.

4. Absorption trenches must be inspected following placement of stone and pipe, but prior to backfilling of the trenches.

C. A person must not use an on-site sewage disposal system or an on-site water supply system, or occupy any new dwelling, apartment house, store, or other building for which a permit was issued under Chapter 27A, until a certificate of completion for the sewage system and a certificate of potability for the water system, as appropriate have been issued by the Approving Authority.

D. The permittee must provide the Approving Authority 48 hours prior notice that the work covered by these regulations is ready for inspection. Upon receiving such notice, the Approving Authority must inspect the work and notify the permittee or owner of its approval or disapproval. If the work is not in compliance with these regulations, notice must be given of the deficiencies found and corrective measures necessary. Any portion of the work which does not comply must be promptly corrected by the permittee or owner. The Approving Authority may either make additional inspections to determine compliance with these regulations or waive

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inspections.

E. The Approving Authority must maintain a permanent record of inspections and forward certificates of completion and potability to the permittee when the on-site water supply and sewage disposal systems have been satisfactorily completed in accordance with the requirements of these regulations, permit conditions and approved plans and specifications.

27A.00.01.05 On-Site Sewage Disposal System Site Criteria

A. The Approving Authority must consider the general topography, geology, hydrology, and soil classifications of the proposed property for suitability for on-site systems. As part of the review process, the Approving Authority must consider surface and subsurface drainage, soil descriptions, soil permeability tests, excavations, and the location, construction, and performance history of septic systems and wells in the area for their potential impact on new systems. The Approving Authority may require a hydrogeologic study, which includes field collected data on underlying geology and hydrology, as part of the review process.

B. The Approving Authority must perform all soil tests at depths that ensure adequate trench side wall remains after grading is complete.

C. The Approving Authority must conduct water table tests to a maximum depth of 15 feet between February 1st and April 15th, the period of the seasonally high water table. The Approving Authority may reduce this time period when there is evidence of insufficient or abnormally low annual ground water recharge or abnormally low water tables. Tests may begin earlier, but not earlier than January 1, when rainfall has been sufficient to establish high water tables. The Approving Authority must evaluate percolation tests on restricted soils during this period.

D. The Approving Authority must not approve on-site sewage disposal systems where there is less than 4 feet of unsaturated, unconsolidated material sufficient to attenuate effluent below the bottom of the absorption trench. The minimum acceptable useable vertical sidewall absorption area for a deep trench system is 8 feet, 4 feet for buffer and 4 feet, for trench sidewall absorption exclusive of backfill cover requirements, except that a minimum vertical sidewall absorption area of 6 feet may be accepted when bedrock or other limiting conditions are encountered.

E. A sewage absorption area must not be located in a 100 year flood plain.

F. Each building site utilizing on-site sewage disposal must meet one of the following requirements:

1. Existing parcels of land without change in lot configuration since March 3, 1972 and subdivided lots recorded prior to March 3, 1972, on which percolation tests have not been approved by the Approving Authority, must have sufficient area for the initial absorption area and at least 2 recovery absorption areas. The total absorption area or mound

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disposal area, which includes the initial mound system and 2 replacements, must not be less than 10,000 square feet of useable area.

2. Existing parcels of land without change in lot configuration since March 3, 1972, with deeds dated prior to March 3, 1972, and subdivided lots recorded prior to March 3, 1972, on which percolation tests have been approved by the Approving Authority must have a total absorption area equal to one of the requirements listed in a. and b. below.

Additional percolation testing may be required due to insufficient number of sites tested, inadequate depths tested, tests performed in the wrong period of year for highest water table confirmation, and history of failures of disposal systems in adjacent areas.

a. Recorded subdivision lots having approved preliminary plans must have a useable 10,000 square feet total absorption area or mound disposal area or must comply with the absorption area requirements delineated on such plans, whichever is the greater.

b. Other subdivided lots and existing parcels of land must have sufficient area for the initial absorption area and at least 2 recovery absorption areas. The total absorption area or mound disposal area, which includes the initial mound system and 3 replacements, must not be less than 10,000 square feet of useable area.

3. All lots subdivided after February 28, 1979 must have sufficient absorption area to comply with the sewerage service category of the County Plan to which the lot is assigned as follows:

a. Lots in Sewerage Service Categories 1 through 5 must have sufficient area for the initial absorption area and at least 2 recovery absorption areas. The total absorption area or mound disposal area, which includes the initial mound system and 2 replacements, must not be less than 10,000 square feet of useable area.

b. Lots in Sewage Service Category 6 must have sufficient area for the initial absorption area and at least 3 recovery absorption areas. The total absorption area or mound disposal area, which includes the initial mound system and 2 replacements, must not be less than 10,000 square feet of useable area.

c. See Section III (L)* for failed septic systems and improvements to or replacement of existing housing.

***Editor's note**—see 27A.00.01.03L

G. Any subdivision lot located within 2,500 feet of the normal water level of existing or proposed water supply reservoirs to include emergency drinking water supply reservoirs, measured horizontally, or within a 5,000 foot radius upstream from the water intake on streams used as potable water supply sources and a 5,000 foot radius of a water intake within

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a reservoir, must have an area of not less than 2 acres with a minimum width of 175 feet. No sewage disposal system can be located within 300 feet, measured horizontally, of the normal high water level of a water supply reservoir or within 200 feet, measured horizontally, of the banks of any stream which feeds into the reservoir. The limitations described above do not apply to areas below the dam forming the reservoir.

H. The total absorption area must comply with the following distance criteria:

1. At least 100 feet removed from any well.
2. At least 20 feet removed from any building.
3. At least 5 feet removed from any lot line, except where easements are recorded, in which case the distance must be 5 feet from the easement line.
4. At least 10 feet removed from any swimming pool.
5. At least 10 feet removed from any utility line.
6. Shallow trench systems - at least 5 feet removed from any driveway.
7. Shallow trench systems at least 10 feet removed from any tree.
8. At least 100 feet removed from any stream.
9. Where adverse physical conditions are encountered, such as slopes in excess of 25% (measured horizontally from sewer line invert to slope), ravines, drainage and watercourses, flood plain soils, gullies and rock outcrops, a minimum distance of 25 feet must be maintained between the adverse areas and the total absorption area. Greater distances may be required at the discretion of the Approving Authority.

I. Where other than single family dwellings or shared facilities are contemplated, the Approving Authority must require that disposal trenches in an absorption area be at least twice (2 times) the total stone depth on center but not less than 15 feet on center unless waived by the Approving Authority.

J. Conventional mound systems may be used when shallow or deep trench systems cannot be used because of soils or ground water levels or both. Site evaluations, testing, design, construction, approvals and any other standards required by State of Maryland regulations and Maryland Department of the Environment guidelines must be adhered to. Absorption areas must be established in accordance with Section V, F.* The Approving Authority must make information available to property owners for testing for mounds. The Approving Authority must conduct tests, review, and approve the design and plans for conventional mounds and inspect construction.

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***Editor's note**—see 27A.00.01.05F

K. Where facilities other than single family dwellings or shared facilities are contemplated, and the total absorption field exceeds 10,000 square feet, each additional 10,000 square feet or portion must be established on separate 15,000-40,000 square feet of available useable land or proportional area depending on percolation rates in accordance with the table below. In the case of a portion, the Approving Authority may waive the full 15,000-40,000 square feet providing that separate useable land commensurate with the additional absorption field area is available. This density criterion also applies to easement areas.

Using Public Water Facilities & Individual <u>Sewerage Systems</u>		Time Required for a 1 Inch Drop	Using Individual Wells & Sewerage Facilities		
Width	Min. Area		Min. Width	Min. Area	Min.
(sq.ft.)	(sq.ft.)	(minutes)	(feet)	(sq. ft.)	(feet)
	15,000	2 to 5	100	20,000	100
	17,500	6 to 15	125	25,000	100
	20,000	16 to 25	150	30,000	100
	30,000	26 to 30	150	40,000	150

L. Shared facilities may be established on a case by case basis after review and approval by the Approving Authority and the Maryland Department of the Environment in accordance with COMAR 26.04.05. A governmental body (controlling authority) must be established for the management, operation and maintenance of the facility.

27A.00.01.06 Percolation Tests

A. The Approving Authority must conduct all water table and percolation tests and supervise all other tests required by the Approving Authority. All such data must become part of the application file.

B. At least 2 sets of percolation tests, each set to include both a shallow and deep test, must be conducted in each total absorption area. The Approving Authority may require more than 2 sets of percolation tests if necessary to define a contiguous absorption field. The Approving Authority may also refuse re-testing in areas having already been tested, since the

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soils would not have changed, except in cases of testing for mounds.

C. Percolation rates more rapid than 2 minutes per inch, after pre-wetting, must not be approved. A percolation rate between 2 and 5 minutes per inch, after pre-wetting, may be grounds for disapproval if, in the opinion of the Approving Authority, adequate protection of the ground water may not be provided. All testing data, including untested excavations, must become part of the application file. The slowest allowable percolation rate, after pre-wetting, is one inch in thirty minutes.

D. Percolation test sites must be prepared in the following manner:

1. A testing section or test cup must be 6 to 8 inches in diameter and 30 inches deep. The Approving Authority has the discretion to determine the depth at which the test cups are to be placed. Deep tests may be conducted using a "V" notch made by a backhoe bucket.

2. The test section test cups must be filled with clean water no earlier than 24 hours prior to conducting the percolation test.

3. If water remains in the test cup after the 24 hour period, the test must be considered a failure.

4. If water is absent in the test cup after the pre-wet period, the percolation test may be conducted.

5. Where bedrock is encountered before ground water is reached, testing must not be made below the point of refusal of a rubber wheeled back hoe.

6. Test cups must be free of excess sediment.

7. If either the "V" notch procedure or test cup procedure is used and fails, the test depth must not be reevaluated using the other procedure.

E. Re-testing at a new depth or soil strata, must be scheduled by the Approving Authority within 10 working days upon request by the applicant.

F. If tests reveal the site is unsuitable for a conventional shallow or deep on-site system, but that a conventional mound system is a possibility based on soils and shallow depth test results, the property owner may begin testing for a conventional mound system using the same site plan. The test site locations must be confirmed by a surveyor.

G. It is the responsibility of the land owner to: assure that danger notices are posted at the site of test excavations, give adequate notice of the existence of the excavations, and maintain notice while excavations remain open and uncovered. Excavators and property owners must be alert to the need to provide barriers around excavations in areas readily available to the public. The Approving Authority may require additional safeguards for excavations in

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locations subject to public traffic. This does not relieve excavators and property owners from the responsibility to take action to eliminate the danger of open excavations. It is unlawful for the landowner to allow any test excavation to remain open on his land for more than 20 days total and no more than 5 days after the completion of tests.

H. Property owners may call the Approving Authority to determine whether water table or percolation tests are scheduled to be conducted in the morning or afternoon so they can be present if they wish.

I. Test rates will be provided to the property owner on-site if the owner is present.

J. A horizontal reference stick with permanent markings, or an alternative approved by the Approving Authority, must be used to assure that all measurements are taken from the same reference mark.

27A.00.01.07 On-Site Sewage Disposal System Design and Construction

A. Sewage from bathrooms, kitchens, laundry fixtures, and other household plumbing must receive adequate treatment from a sewage treatment unit before the effluent is discharged to an approved on-site sewage disposal area.

B. Grease interceptors are required on separate kitchen waste drains from restaurants and other establishments discharging large amounts of grease.

C. All sewage treatment units must conform to the following criteria:

1. The liquid capacity of septic tanks must conform with the following:

<u>No. of Bedrooms</u>	<u>Minimum Septic Tank Capacity below Outlet</u>
1-3	1,000 Gallons

Each additional bedroom requires an additional 250 gallons in septic tank capacity. The minimum size anaerobic treatment unit must be 1,000 gallon capacity.

2. Septic tank capacities for other than single family dwellings must be equal to or exceed 2 times the estimated sewage flow per day. The minimum septic tank capacity for facilities other than single family dwellings must be 1,500 gallons. All anaerobic treatment tanks over 2,000 gallon capacity must be compartmentalized.

3. Septic tanks must be located at least 100 feet from any well. Septic tanks must be located at least 15 feet from any building and 10 feet from any swimming pool . They may not be deeper than 18 inches below final grade except the maximum depth can be 36

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inches provided access is within 18 inches of final grade.

4. Septic tanks must be watertight and of a material which cannot corrode or otherwise decay. Tank design and construction must be approved by the Approving Authority.

5. Aerobic units may be used instead of septic tanks if approved by the Approving Authority, and must be designed using maximum daily flows. A reduction in lot size or absorption area requirements is not allowed with their use. All aerobic units must be made of materials and constructed in a manner acceptable to the Approving Authority. A two year service contract must be made a condition of approval for use of aerobic units.

D. Sewer lines must not be located within 25 feet of any well. Sewer lines within 50 feet of any well must have watertight seals satisfactory to the Approving Authority. Sewer lines located under driveways or roadways must be protected from crushing loads using a method satisfactory to the Approving Authority. Gravity sewer lines must have a minimum internal diameter of 4 inches. Gravity sewer lines from the septic tank must be laid to a minimum grade of not less than 1 foot per 100 feet - preferably 2 feet per 100 feet.

E. The required effective absorption areas for single family residences are found in Tables I and II.

1. Drain tile or perforated drainpipe must be at least one foot below final grade and have at least one foot of soil cover. There must be at least 4 feet of useable unconsolidated, unsaturated soil buffer between the bottom of a disposal trench and bedrock or ground water. The buffer must be established by percolation testing and any other tests required by the Approving Authority and be composed of original soils material sufficient to attenuate sewage effluent. To establish the useable sidewall absorption depth and assure the buffer is included in the trench design, 4 feet or more is subtracted from the deep percolation test depth when the total trench depth is calculated. Buffer distances greater than 4 feet established because of low rainfall need not be tested for percolation unless required by the State of Maryland.

TABLE I
Required Side Wall Absorption Area (SQ.Ft.) For Deep Trenches*
Percolation Tests in Minutes Per Inch

<u>SIZE</u>	<u>gpd</u>	<u>Est. Flow</u> <u>to 10</u>	<u>Passing</u> <u>11-15</u>	<u>16-20</u>	<u>21-25</u>	<u>26-30</u>
3 BR***	325	833	1025	1310	1625	1836
4 BR	400	1026	1262	1613	2000	2260
5 BR	475	1217	1498	1915	2375	2684

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6 BR**** 550 1410 1735 2218 2750 3107

The required total length of a two-foot wide, deep absorption trench will be calculated using the following equation:

$$\text{Length of Trench in Feet} = \frac{\text{Absorption Area in Square Feet}}{(2 \times \text{Depth of Stone in Feet})}$$

* Two foot wide trenches

TABLE II
Design Requirements for Shallow Trench Lengths
When Using 18" Depth of Stone**
Lengths in Feet
Percolation Test in Minutes Per Inch

<u>SIZE</u>	<u>Size Gallons</u>	<u>Septic Tank to 10</u>	<u>Passing 11-15</u>	<u>16-20</u>	<u>21-25</u>	<u>26-30</u>
3 BR***	1000	300	300	328	406	459
4 BR	1250	300	316	403	500	565
5 BR	1500	304	375	479	594	671
6 BR****	1750	454	434	555	688	777

When Using 30" Depth of Stone**
Lengths in Feet
Percolation Test in Minutes Per Inch

<u>SIZE</u>	<u>Septic Tank Size Gallons</u>	<u>Passing to 10</u>	<u>11-15</u>	<u>16-20</u>	<u>21-25</u>	<u>26-30</u>
3 BR***	1000	176	216	277	343	388
4 BR	1250	217	267	341	422	477
5 BR	1500	257	316	404	502	567
6****	1750	298	366	468	581	656

When Using 42" Depth of Stone**
Lengths in Feet
Percolation Test in Minutes Per Inch

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<u>SIZE</u>	<u>Size Gallons</u>	<u>to 10</u>	<u>11-15</u>	<u>16-20</u>	<u>21-25</u>	<u>26-30</u>
3 BR***	1000	133163	209	259	293	
4 BR	1250	164201	257	319	360	
5 BR	1500	194239	305	379	428	
6 BR****	1750	225277	354	438	495	

**Depth refers to stone. All trenches must also have one foot of ground cover.

***Three bedrooms is the minimum size system allowed.

****Over six bedrooms must be sized proportionally larger.

2. Disposal trenches for single family residences must be separated by at least 10 feet, center to center. Greater separation distances may be required by the Approving Authority. The Approving Authority may authorize lesser spacing when required to repair an existing system that is failing.

F. Where pumping from the septic tank to the disposal field is approved the proposed pumping system must be reviewed and approved by the Approving Authority. Sufficient data, including pump curves, must be included in the application to verify the capacity of the pumps selected as well as the specifications for the pump station, force main (ID, construction material and total length) and connection to the header trench.

G. Where facilities other than single family dwellings are being considered the peak water use determination for design flow must be made using the best current information available as determined by the Approving Authority. The Approving Authority may require special design treatment and/or disposal criteria where sewage and water supply systems exceed 2,000 gallons maximum daily flow. All systems treating 5,000 gallon daily flows or more require review and approval by the Maryland Department of the Environment and must be included in The Comprehensive Water and Sewerage Systems Plan.

The allowable application rates of sewage for other than single family dwellings are shown in Table III.

TABLE III

in	Percolation Rate Time in Minutes	Maximum Application Rate
	For One Inch Drop After Pre-wet	<u>Gallons per Square Foot Per</u>
<u>Day</u>		

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Drop After Pre-wet

Passing to 10	0.390
11 to 15	0.317
16 to 20	0.248
21 to 25	0.200
26 to 30	0.177

H. Gravity sewers and tubing used in waste water drainfields must be made of plastic which meets the minimum standards of the State of Maryland or other material satisfactory to the Approving Authority.

I. Trenches must be installed with a uniform depth and level bottom. The maximum length of shallow trench must not be more than 100 feet. The slope of the drain tile must be between one and four inches per one hundred feet. Trench fill must be uniformly graded, clean stone. The stone must be at least 3/4 inch. The top of the drain tile must be located in the top six inches of stone. The stone must be covered with porous building paper, or other biodegradable material prior to backfilling. All trenches must be backfilled within two working days after inspection to prevent silting. The minimum backfill cover requirement is one foot of soil. Backfill must be mounded above grade level to allow for settling and to improve drainage above the absorption trench. The total absorption area must not be cut or filled unless a revised plan is submitted and a new permit issued by the Approving Authority.

J. In the interest of workman safety, the depth of stone in deep unbraced trenches must be extended to within, but not less than, four feet from the finished grade prior to placement of the drain tile. Absorption systems that have approved percolation below four feet can be credited only for sidewall area within the absorption area established by percolation tests.

27A.00.01.08 Subdivision of Land

A. General Provisions

1. The development of a subdivision must not be considered where, in the opinion of the Approving Authority, the disposal of effluent from an on-site sewage treatment and disposal system would result in the contamination of ground water.

2. In any subdivision the density of sewage disposal trenches for on-site disposal areas must meet the following criteria:

a. All lots proposed for uses other than single family dwellings, for example, churches, public utilities, shopping centers, schools, multi-family housing, and commercial and industrial buildings must have sufficient area for the initial

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absorption area and at least three recovery absorption areas. The total absorption area must be at least 10,000 square feet of useable area per 500 gallons of water flow per day or enough area for the initial and three recovery absorption areas, whichever is greater. Single family dwellings require no less than 10,000 square feet which includes an initial absorption area and 2 or 3 recovery areas depending on when the lot was created and the sewerage service category. See Section V, F* for specific criteria. Conventional shallow trench absorption systems are only permitted when the projected water use is less than 500 gallons per day.

***Editor's note**—see 27A.00.01.05F

b. When the total required absorption area exceeds 10,000 square feet for lots proposed for subdivision approval, including areas proposed or established as easements, each additional 10,000 square feet of absorption area or portion, must be established on 15,000-40,000 square feet or proportional area depending on percolation rates. See Section V, K* for specific criteria.

***Editor's note**—see 27A.00.01.05K

c. Each total absorption area or portion of an absorption area must be separated from any other absorption area or portion by at least 50 feet when the Approving Authority concludes the separation is necessary to avoid a concentration of sewage.

d. In the Patuxent River Watershed a minimum of 17,000 square feet of useable area for each 500 gallons of flow per day is required for the absorption field. In addition the Approving Authority may prohibit the use of easements for absorption fields, require a minimum lot size of 2 acres unless a study of the hydrology and geology indicates a different lot size may be appropriate, require a study of the hydrology and geology, require a buffer distance greater than 4 feet between the bottom of the absorption trench and the high ground water level and two compartment septic tanks and any other provisions the Approving Authority may consider necessary to protect the watershed.

3. Percolation test excavations must be constructed of adequate size to permit unrestricted inspection of the natural sidewall materials and to provide easy access to the percolation test hole for measurement purposes. Water table observation holes may be augered.

4. The location of the sewage disposal area must coincide with the location shown on the record plat. The initial sewage disposal trench must be designated by a stake pursuant to Section IV.B.1.* of these regulations.

***Editor's note**—see 27A.00.01.04B.1

5. Any lot or parcel created by deed on or after March 3, 1972 must comply with these regulations and those defined by the Board.

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B. On-Site Systems

1. In subdivisions without community sewerage systems or community water supply systems, the Approving Authority must approve all lots utilizing on-site water supply systems and/or on-site sewage disposal systems prior to recordation of the plat. The Board cannot approve record plats containing these lots until written approval of the preliminary plan for the lots has been provided by the Approving Authority.

2. The minimum lot size must range from 15,000 to 40,000 square feet depending on percolation rates where either on-site water supply systems or on-site sewage disposal systems are to be utilized.

3. The Approving Authority may require increased lot sizes to protect the public health, the ground water, or to preserve the safety of the water supply and assure the functioning of the on-site sewage disposal system. The Approving Authority may, for the same reasons, require the conduct and submission of a hydrogeologic study for review before a decision is made to approve the preliminary plan.

4. The Approving Authority may require the drilling of test wells at the initial preliminary plan phase in sufficient numbers to demonstrate the adequacy of ground water when a subdivision is proposed in an area where experience has indicated ground water is a scarce resource.

5. On-site sewage disposal systems must be located downgrade from any on-site water supplies. A waiver may be granted after consideration of the hydrogeologic conditions within the subdivision.

6. COMAR 26.02.03, Water Supply and Sewerage Systems in the Subdivision of Land in Maryland, must be followed when its provisions exceed the requirements of these regulations.

C. Initial Preliminary Subdivision Plan Specifications

1. General. Every proposed subdivision or resubdivision must be submitted to the Board for tentative or conditional approval in the form of a preliminary plan prior to the submission of a subdivision record plat. The plan must show, graphically, all facts needed to enable the Board and other public agencies to determine whether the proposed layout of the land under review is satisfactory from the standpoint of the public health, safety, and welfare and applicable laws, ordinances and regulations.

2. The Drawing. The drawing must be a graphic representation of the proposed subdivision and must be submitted with the application in a form and with information and supporting detail as required by regulations of the Board furnished with the application form. Details and information required must include:

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- a. Scale drawing of 100 feet to the inch, or other scale which may vary according to the size of the development, in accordance with Board requirements.
- b. Title information.
- c. Certificate of a registered professional engineer or a registered land surveyor as to source and accuracy of boundary lines, topographic data, and other engineering or survey data.
- d. Existing features, including tree groves of substantial character, scenic or historic areas, streams, drainage areas, and outstanding natural topographic features.
- e. Boundary outlines, with survey tied into Washington Suburban Sanitary Commission or Maryland State Grid System, as required by the Board.
- f. Locations and names of adjacent subdivisions with lot, block, and record plat number of immediately adjoining subdivided land.
- g. Location, names, widths of right-of-ways, and construction details for all roads and dedicated right-of-ways and easements.
- h. Location of existing and proposed utilities.
- i. Existing topography with contour intervals not greater than two feet unless the use of five (5) foot contours is approved by the Approving Authority.
- j. Vicinity location map.
- k. Graphic representation of property drawing of proposed subdivision including:
 - (1) Lot and block layout.
 - (2) Roads and streets.
 - (3) Sites for public uses and open spaces.
 - (4) Right-of-ways and easements for slopes, paths, utilities, on and off-site storm drainage, and other required improvements.

3. On-Site Water Supplies and On-Site Sewage Disposal Systems. Before submission to the Approving Authority, all preliminary subdivision plans for lots in areas where on-site water supplies and/or on-site sewage treatment and disposal systems are to be installed must show, in addition to the usual data, the following details:

- a. An initial site and 2 alternative sites for proposed well

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locations. The primary well site must be surveyed in and staked before the well is drilled. Each of the 3 sites must show a minimum separation of 50 feet, and must be upgrade from any on-site sewage disposal system unless a study of the hydrogeologic conditions demonstrates that ground water quality downgrade would not be adversely effected by ground disposal of sewage. Where there are existing wells within 100 feet on the property or on adjoining lots, they must also be shown.

b. A circular area, with radius of 100 feet around each well to denote clear space, in which no final sewage system is to be located. The well radius cannot overlap the subdivision boundary by more than 5 feet unless specified by the Approving Authority; an overlap of more than 5 feet must be recorded as an easement or covenant in the land records of Montgomery County.

c. The "useable area" for sewage disposal, the limits of which are established by percolation and other field tests. The "useable area" must be situated beyond the 100 foot radius of the wells and downgrade from the proposed house location and must all be in unconsolidated and unsaturated soils.

d. Any existing sewage disposal systems on the property or on adjoining lots within 100 feet.

e. Swamps, rock outcrops, and flood plains.

f. A ten-foot zone surrounding the water service line to buildings, free and clear of any sewer lines, systems, or part thereof.

g. Soil Survey Overlay. Soil types must be graphically displayed on the preliminary subdivision plan. Soil types must be designated using the Montgomery County Soil Survey as a reference.

h. The proposed treatment unit and the total absorption area must be located so that it is reachable by gravity flow from the lowest proposed plumbing fixture.

i. The septic tank no deeper than eighteen (18) inches below final ground grade except the maximum depth of the tank can be 36 inches provided access is within 18 inches of the final grade.

j. Proposed location for conventional mound system to include total area for initial and recovery areas, 10,000 square feet minimum.

D. Final Preliminary Subdivision Plan-Specifications

The final preliminary subdivision is the initial preliminary subdivision plan with the additional requirements developed after conducting percolation tests. The following must be shown on the final preliminary subdivision plan:

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1. The area reserved for the location of the proposed house and the maximum number of bedrooms which can be included in the house. The reserved area must satisfy all restrictive distances as set forth in the regulations.
2. The proposed location of the septic tank and starting point of the initial sewage disposal trench.
3. The lowest fixture invert elevation, the invert elevations of the septic tank inlet and outlet, and the invert elevation at the beginning of the initial absorption trench.
4. The initial absorption trench installation and the total absorption area.
5. All trees intended to be retained which are located within the initial absorption area.
6. Existing topography showing 2 foot interval contours unless the Approving Authority permits the use of 5 foot contour intervals.
7. For conventional mound systems, the initial mound installation and replacement areas.
8. For mound systems the applicant must provide any design information required by the Approving Authority.

E. Record Plat

1. Specifications. The final subdivision record plat must be clearly and legibly drawn in black india ink on tracing cloth. The size of the sheets must be 18 inches by 18 inches, including a margin of one-half inch outside ruled border lines. The record plat accompanying the application for approval must contain the graphic and descriptive items listed below. The lack of or incorrect information supplied by the applicant under any item specified may be cited by the Board as cause for disapproval of a record plat.

a. Name of the subdivision (subject to approval by the Board) and the description of blocks and lots included on plat.

b. Name, date of approval, and file number of the preliminary plan on which the record plat is based.

c. Zoning classification of property.

d. Total number of lots, outlots, or parcels included on the plat.

e. Total area shown on the plat, including streets and total

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area dedicated to public use.

f. Name and address, including telephone, of the owner and the registered land surveyor who prepared the plat.

g. The maximum number of bedrooms permitted.

h. A septic set back line is shown 20 feet from the total absorption area to indicate the area where improvements could damage the absorption field.

i. A note that states the septic set back line is subject to change with approval of the Health Department.

j. Other information as the Approving Authority may require.

2. Drawing. The subdivision plat must be accurately drawn to a scale approved by the Board and must include the following items.

a. Title. The title must appear in the lower right-hand corner of the sheet, and must include the following information:

(1) Approval names of the subdivision and the section of the subdivision.

(2) Election district, County, and State, or name of town instead of election district, if the subdivision is in an incorporated town.

(3) Scale of the drawing and date of completion.

(4) Name of the registered land surveyor who prepared the plat.

b. Subdivision Plan. All boundaries, street lines, and lot lines, plus any other lines pertinent to the plan, must be shown with sufficient data, accurately calculated, to locate each line and property corner and be reproducible on the ground. The plan must show the following items:

(1) All property boundary lines necessary to identify the subdivision together with the conveyance thereof by which the maker of the plat acquired the property. Where the subdivision is a part of the conveyance, the boundaries shown must include the last complete line touched on by the subdivision or an indicated dimension. Where a subdivision includes all or parts of two or more conveyances, the boundaries of the separate deed descriptions must be indicated by light lines running through the subdivision, together with the deed reference to each original tract or parcel.

(2) Exact locations, widths, and names of all streets

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within the subdivision and widths of alleys and crosswalks.

(3) All easements established or right-of-ways provided for public services or utilities in the subdivision, and any limitations of the easements, plus recordation reference.

(4) Accurate outlines of any areas to be reserved for common use by residents of the subdivision or for general public use, with the purposes indicated on the plan.

(5) Accurate bearings and lengths of all block and lot lines, together with the length of radii, arcs, tangents, and chords with chord bearings and central angles for all curves in the layout. A curve table must be used containing this data and referenced to the curves shown in the drawing.

(6) All bearings must refer to the Washington Suburban Sanitary Commission grid meridian and the survey accurately tied into this system where control is available within one-half mile of the subdivision. Otherwise, they must refer to the true meridian or the Maryland State Plane Coordinate System. The meridian used must be noted alongside the north arrow which is required on each plat. Plats of resubdivisions may refer to the "Plat Meridian," meaning that used on the original subdivision plat. On plats of small subdivisions, involving only one or two lots, in locations where no established control is available, reference to the "Deed Meridian" will be acceptable.

(7) If the survey is tied into the Washington Suburban Sanitary Commission or Maryland State Grid System, the grid lines must be shown around the borders of the plat with their coordinate values indicated. The coordinates of the property line monuments shown on the plat must be given.

(8) Accurate location of all monuments is required.

(9) Lots numbered in numerical order. In tracts containing more than one block, the blocks must be lettered in alphabetical order. In case there is a resubdivision of lots in any block, resubdivided lots must be numbered numerically, beginning with number following the highest lot number in the block. The original lot lines must be shown dashed and the original lot numbers dotted.

(10) Area of each lot, parcel, or other unit shown on the plat.

(11) Front building lines, shown graphically with dimensions, where they exceed the required minimum specified in Chapter 59 of this code, and any other building restriction lines which may apply in a particular case.

(12) Accurate bearings and lengths of tie connections

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between all adjacent blocks and other subdivisions.

(13) Names and locations of adjoining subdivisions with lot and block numbers immediately adjoining, together with plat references.

(14) Location and apparent ownership of adjoining unsubdivided property with land record or will references.

(15) Key map showing the location of the subdivision when it is in an outlying area not adjoining a recorded subdivision. In case of a large subdivision requiring multiple plats, the key map must show the location of previously recorded plats within the subdivision by section number.

(16) The initial well and the 2 alternative well locations must be shown on the record plat along with the area reserved for the location of the proposed house. House construction beyond the area reserved is prohibited unless approved by the Approving Authority. This reserved area must satisfy all restrictive distances in these regulations. The well radius must not overlap the subdivision boundary by more than 5 feet unless approved by the Approving Authority.

(17) The location of the initial absorption trench installation, and the total absorption area. For mounds: the location of the initial mound and total mound absorption area.

(18) Surveyor or Engineer Certificate. Certificate by the registered land surveyor or registered engineer, in a form required by the Approving Authority, certifying to the accuracy of the plat, to the location of percolation tests and water table tests, to the placing of property line monuments, and to areas included on the plat and dedicated to public use.

(19) Owner's Certificate. Certificate by the owner and all parties of interest, in a form approved by the Board, adopting the plan of subdivision, establishing slope easements and minimum building restriction lines, and dedicating to public use, roads, streets, alleys, walks, utility and storm drainage right-of-ways, parks, and other areas approved for dedication to public use by the Board.

(20) Approval Box. The form of the box must be approved by the Board.

F. In the RDT Zone when additional lots are created on a farm, the Approving Authority may, at the request of the property owner, and after consultation with the Maryland Department of the Environment regional consultant, accept the existing on-site sewage disposal system for the existing farmhouse if there is no visual evidence of a septic failure and the distances between adjacent septic systems are significant.

27A.00.01.09 Special Methods of Sewage Collection and Disposal

A. Community sewer systems followed by conventional on-site sewage treatment and disposal systems must be considered in that order to correct a system malfunction. When these systems are not applicable, the Approving Authority must provide the best technical solution available to attempt to resolve existing pollution or environmental health problems.

B. Privies must be of the vault type and located and constructed to prevent contamination of ground water or surface waters. They must be constructed to be insect and rodent free and to prevent odor nuisances. The Approving Authority must approve the location and construction plans before a construction permit is issued. Where the privy is abandoned, the superstructure must be removed or crushed and the hole backfilled with clean fill. Privies may only be used where there is no water under pressure and only on lots or parcels of property infrequently or seasonally used, such as camps, parks, fishing and hunting lodges, etc.

C. Chemical toilets must be constructed of impervious materials, vented to the outside air above the roof line of the structure housing them, and supplied with an adequate amount of the chemical agent used to reduce and deodorize the tank contents. Chemical toilets may be used only for special short term events and in the abatement of problems.

D. When privies or chemical toilets become filled to the recommended capacity, the contents must be removed and disposed of as provided in Section XIII* of these Regulations.

***Editor's note**—see 27A.00.01.13

E. Human body wastes must be disposed of in approved privies, chemical toilets, or other installations acceptable to the Approving Authority where water under pressure is not available. These methods are not authorized for new construction.

F. Holding Tanks. Holding tanks must not be used for new construction. Holding tanks must only be used to resolve existing on-site sewage system failures and to provide indoor plumbing to legally occupied and situated dwellings without indoor plumbing where community sewer is not economically available and on-site repair is not possible. The following conditions must be met for the use of a holding tank:

1. Each request for a holding tank must be reviewed by the Approving Authority on a case- by-case basis.

2. The holding tank must physically meet distance and set back requirements from wells, property lines, building lines, etc., and must comply with design criteria of COMAR 26.04.02. Holding tanks, when authorized, must be sized to hold a minimum of seven days waste water flow, and must be water tight.

3. A high effluent level alarm system must be required on all holding

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tanks. The alarm must be set at an elevation in the tank that will allow for a minimum one-day storage, based on the design flow, between the alarm float and the holding tank inlet.

4. All new plumbing installed must have low flush toilets (i.e. a toilet that uses no more than 1 ½ gallons of water per flush). Other water-saving fixtures must be used whenever possible.

5. Adequate access must be made available to allow for scavenger truck pump-outs on a regular basis.

6. The property owner must enter into a contractual arrangement with a licensed scavenger to assure continued, effective, and efficient removal of stored wastewater necessary to prevent a system overflow. The licensed scavenger must meet all requirements and comply with Section XIII.*

***Editor's note**—see 27A.00.01.13

7. The property owner must demonstrate that he is financially able to comply with Subsection F6 above.

8. The applicant must sign an agreement with the Approving Authority, containing the above conditions. The agreement must be filed in the land records of the County, run with the property, and be binding on all future owners of the property.

G. Expansion or enlargement of an existing structure being served by a holding tank cannot be approved, but a bathroom may be added for indoor plumbing, when none exists, in accordance with COMAR 26.04.02 and Section 223, Environment Article, Annotated Code of Maryland.

H. Toilets which utilize incineration as the waste disposal process will not be permitted.

I. In the event that a property proves to be unsuitable for a conventional trench system because of high water table, a conventional mound system may be considered under the following conditions:

1. Ground water is at least 2 feet below the original grade during the wet season, and there is no evidence of mottling in that 2 foot strata;

2. Percolation rates measured after pre-wetting, utilizing a method that measures vertical permeability, are not faster than 1 inch in 5 minutes and not slower than 1 inch in 60 minutes.

3. The sewage disposal area has natural slope of less than 12 percent;

4. A total absorption area is established sufficient for the initial

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mound and 2 or 3 recovery mound areas depending on sewerage service category (Section V, F, 3, a. & b.*).

***Editor's note**—see 27A.00.01.05F.3.a and b

5. Testing and design criteria for this type of mound must be in accordance with COMAR 26.04.02.05.

6. Conventional mound systems must be installed by installers certified by the State of Maryland in accordance with COMAR 26.04.02.05Q(6).

27A.00.01.10 Innovative and Alternative Technologies

A. Innovative and alternative on-site sewage disposal systems must not be used in subdivision development.

B. Innovative and alternative on-site sewage disposal systems may be used on a case-by-case basis to correct existing malfunctioning, on-site systems for homes legally established and occupied when public sewer is not available and conventional on-site systems cannot alleviate the problem.

C. Proposals for innovative and alternative systems must be submitted concurrently to the Montgomery County Health Department and the Department of the Environment for review and approval.

D. Testing and application procedures must be in accordance with COMAR 26.04.02. as amended, and any successor COMAR regulation or Maryland Department of the Environment guidelines.

27A.00.01.11 Water Supplies

A. New wells. New well construction must be upgrade from on-site sewage disposal systems (COMAR 26.04.04 and COMAR 26.04.02.05.C). The Approving Authority may grant a waiver after consideration of the hydrogeologic conditions on the lot and subdivision and discussions with the Maryland Department of the Environment.

B. Existing wells.

1. Wells using clay or terra cotta casings, dug wells, and springs must not be approved for a potable water supply.

2. Abandoned or unused wells must not be used for the disposal of sewage, sewage effluent, or any other polluting or contaminating material.

3. Wells must meet water quality and construction standards as set forth in COMAR 26.04.04. for the issuance of a certificate of potability or approval by the

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Approving Authority as a certified well.

4. The Approving Authority may require the abandonment and sealing of an on-site water well and connection to the public facility where public water is available.

5. When repairing an existing well, casings terminating below ground must be extended to a minimum of eight (8) inches above final grade and the construction standards of COMAR 26.04.04 must be met.

C. On-site wells must be abandoned and sealed when connection is made to public water.

D. Wells may not be approved in an area where public water exists and adequately and economically available to a property and approved for public water service under the Comprehensive Water Supply and Sewerage Systems Plan.

E. New well or replacement well locations must meet the site requirements of COMAR 26.04.02 and COMAR 26.04.04. In the event a waiver is requested, the Approving Authority must seek the approval of the Maryland State Department of the Environment.

F. Where public water is not available, all standby wells must be equipped with a submersible pump and distribution piping.

G. Non-community water supplies - among other things, the State of Maryland, Department of the Environment enforces standards for non-community water supplies that are non-transient; e.g. adult or child day care center, health care facilities, group home on well water. Standards for non-community transient systems, e.g. restaurants, gasoline stations, are enforced by the Approving Authority.

1. The Approving Authority must maintain an up-to-date inventory of all transient non- community water supplies in Montgomery County.

2. Transient non-community water supplies are monitored by the Approving Authority according to the following schedule:

	<u>Water Source</u>	<u>Bacteriological</u>	<u>Nitrate</u>
<u>Turbidity</u>			
None	Ground water (Well)	Quarterly	Every 3 Yrs.

3. The Approving Authority may require the supplier of a non-community water supply to sample according to the above schedule. Private testing laboratories, certified by the State of Maryland, may be utilized for this purpose.

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4. It is possible that some systems are sufficiently protected that the frequency of bacteriological testing may be reduced. The decision to reduce testing must be made on a case-by-case basis. At least two (2) bacteriological samples must be taken per system per year.

5. The Approving Authority may require other parameters to be monitored and tested where monitoring is judged necessary to protect the public health.

27A.00.01.12 Nuisances

A. Any sewage disposal system, with its contents accessible to flies, animals, or surface drainage or endangering a water supply or health in any other way, or which is a privy, with the contents less than one foot below the lower surface of the floor, is considered a sewage disposal nuisance. The Approving Authority may inspect existing sewage disposal systems, and if a sewage disposal nuisance is found to exist on property within reach of a public sewer, the Approving Authority must notify the owner or occupant of the premise to make application to connect the premise to public sewer. The notice will specify a time within which the connection must be made and direct abandonment of the sewage disposal system so that it cannot be used or endanger the public health. If a sewage disposal nuisance is found to exist on a property which is out of reach of the public sewer, the Approving Authority must notify the owner or occupant of the property to reconstruct or replace the existing sewage disposal system within a specified and reasonable time. No owner or occupant can maintain a sewage disposal nuisance after the time limit specified in these regulations or by the Approving Authority. If a sewage disposal nuisance is found to exist as a discharge to the surface or a privy, the Approving Authority may, in addition to notices served in other ways, post a notice on the privy building.

B. If a sewage disposal nuisance exists or existed on property which is vacated, the Approving Authority may, in addition to notices sent in other ways, post appropriate notice on the property stating that no person may occupy the property until the property has been connected to the public sewer or until the sewage disposal system has been reconstructed or replaced. No person may remove or deface the notice of a sewage disposal nuisance on unoccupied property. No person may occupy the property without permission of the Approving Authority, until the property has been connected to the public sewer, or until the sewage disposal system has been reconstructed or replaced in accordance with these regulations.

27A.00.01.13 Scavenging

A. All solid and liquid contents of chemical toilets, septic tanks, seepage pits, and holding tanks, privy, cesspool, and watertight pits for septic tank effluent must be removed when necessary and disposed of in conformance with COMAR 26.04.06, Sewage Sludge Management, and these regulations:

1. Every scavenger must obtain a Sewage Sludge Utilization Permit from the Approving Authority, a copy of which must be carried in each vehicle and available for

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inspection. Permits must be obtained on an annual basis. Specific requirements for obtaining permits must be established by the Approving Authority.

2. The name and address of the scavenger and the permit number must be legibly lettered on both sides of each vehicle used for scavenging purposes. Lettering must be at least three inches in height. The words "Sewage Only" must be lettered on both the front and rear of each vehicle and must be at least six inches in height. The hauling of chemical and designated hazardous substance in these vehicles is prohibited.

3. Every vehicle used for scavenging purposes must be equipped with a watertight tank or body, be maintained in a clean and sanitary condition, and be inspected annually.

4. All pumps and hose lines must be maintained to prevent leakage.

5. Approval, in writing, must be obtained from the Approving Authority for every site where a scavenger plans to discharge the waste material. The disposal of chemical or designated hazardous substances is prohibited. Any person issued a scavenger permit must provide the Approving Authority with the following:

a. Specific manhole locations or facility sites where disposal is authorized by the Washington Suburban Sanitary Commission and copy of the WSSC authorization.*

*Refer to WSSC Regulations 901 - 916 and 221.3.2.

b. The source of the wastes and the quantity to be disposed of in gallons per day.

c. A letter of authorization from the Approving Authority to the scavenger for each approved site.

6. Permit application and renewal fees will be established by the State of Maryland and County Executive Regulations.

7. Waste material collected by scavengers must not be discharged into ditches, watercourses, lakes, ponds, tidewater, or other waters of the State.

8. Disposal in any non-approved areas or unauthorized modification of the septic tank or sewer lines may result in revocation of the permit to operate as a scavenger in Montgomery County.

9. The addition of any organic, inorganic or other, materials, by a licensed scavenger, to improve the operation or maintenance of septic tanks must have the written approval of the Approving Authority.

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27A.00.01.14 Recordation in the Land Records

A. Restrictions placed on the use of a parcel or lot for an existing or replacement dwelling necessitated by limitations of the soils or size of the parcel or lot to treat effluent, must be entered into the land records of Montgomery County. A consent agreement or covenant approved by the Approving Authority must be recorded in the land records to run with the land and be binding on all future owners of the property. Examples of restrictions that must be recorded are: use of holding tanks, approval of an area of less than the total absorption field and number of recovery areas required by these regulations, prohibitions on future expansion of the dwelling, and the use of innovative and alternative technology.

B. The capacity of on-site sewage disposal systems approved by the Approving Authority for new or expanded commercial and industrial development must be recorded in the land records, run with the land, and be binding on all future owners of property. A consent agreement or covenant approved by the Approving Authority must show the total square footage of the space to be leased or used for commercial or industrial purposes, the total maximum daily sewage flows that are estimated, the breakdown of estimated waste water generated by each use within the structure, and the capacity of the on-site sewage disposal system to treat the total maximum daily sewage flows. The estimated waste water generated by all uses must not exceed the total estimated maximum daily sewage flows approved by the Approving Authority or the capacity of the on-site sewage disposal system.

C. The covenant may be released or modified with the approval of the Approving Authority.

27A.00.01.15 Conflicts in Law

Nothing in these regulations may be construed to repeal or affect any powers of the State Department of the Environment under the provisions of the Health-Environmental Articles of the Annotated code of Maryland or COMARS 26.04.02, 26.04.03, and 26.04.04.

27A.00.01.16 Appeals

Initially, an informal appeal in writing should be made to the Division Director who will have the appeal reviewed by the well and septic section chief, regional sanitarian from the Maryland Department of the Environment and other appropriate staff. The property owner and designees may participate in the review process. If the property owner is not satisfied with the decision made after the review, an informal appeal may be made to the Director, Health Department who is the Approving Authority. If this informal appeal is denied, the property owner can follow the formal appeal process indicated below.

Any person aggrieved by a final decision of the Approving Authority with respect to County requirements may have the right to have that decision reviewed by the Montgomery County Board of Appeals in accordance with the provisions of the Montgomery County Code

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Chapter 2, Section 2 and 2A. All such appeals must be made to the Clerk to the Board. In the event a person is aggrieved by a final decision of the Approving Authority in a contested case with respect to State of Maryland requirements the appeal may be filed with the Director, Water Management Administration, Maryland Department of the Environment, within 30 days after notification of the final decision by the Approving Authority.

27A.00.01.17 Severability

If a court holds that part of this regulation is invalid, the invalidity does not affect other parts.

27A.00.01.18 Effective Date

This regulation takes affect 30 days after approval by the County Council.

(Administrative History: Reg. No. 28-93AM (Method 2); Orig. Dept.: Health and Human Services; Supersedes: Executive Reg. No. 64-91)

See COMCOR 08.24B.01 Overtime Offset Fees.

See COMCOR 08.24B.02 Adoption of an Automation Enhancement Fee.

SEC. 27A-5 PERMITS — REGULATIONS

See also COMCOR 08.14.01 Schedule of Fees for Permits, Licenses and Certifications — Method 2

See also COMCOR 19.67.02 Schedule of Fees for Permits, Licenses and Inspections — Method 3

SOILS and SEPTIC SYSTEMS in the RDT

The 1958 Soil Survey by the then Soil Conservation Service of the USDA discusses and delineates broad soil associations (or groupings) that can be useful in determining septic system suitability. What generates the different associations is the difference in the underlying geology or parent material that the soil developed from. Below are the Soil Associations that are present in the RDT zone of Montgomery County and rough estimates as to how well they are suited to different types of septic systems if at all.

The "**Penn-Lewisberry Association**" and its family members represent about 1/3 of the RDT. On the map, it's the 1/3rd located in the southwestern tip of the county. These are the toughest soils in the County for septic systems. Well & Septic staff (WS) estimate that about 10 % of the land will perc for trench systems and approx 30% would need and could support mound systems perc and 60% won't perc at all.

The "**Manor/Linganore/Glenelg Association**" which is in the central-western to northwestern portion of the County. This too is tough area for septic systems. WS estimates that about 20 % of the land will perc for trench systems, approx 50% would need and could support mound systems and 30% won't perc at all.

The "**Glenelg/Manor/Chester Association**" - is in the northeastern part of the RDT-mostly east of Damascus. Here the soils are a little more apt to pass for trenches. WS estimates that about 40 % of the land will perc for trench systems, approx 30% would need and could support mound systems and 30% won't perc at all.

Of course, within all the areas there will be exceptional zones, good and bad.

MEMORANDUM

TO: Transportation and Environment Committee

FROM: Michael Faden, Senior Legislative Attorney

SUBJECT: **Worksession 2:** Expedited Bill 38-05, Sewage Disposal – Septic Systems – Temporary Prohibition

Expedited Bill 38-05, Sewage Disposal – Septic Systems – Temporary Prohibition, sponsored by Councilmember Praisner and then-Council President Perez, was introduced on November 8, 2005. A public hearing, held on November 15, elicited extensive testimony from various viewpoints which split dramatically on the need for and wisdom and fairness of this kind of bill, with most agricultural organizations opposing it and most environmental organizations supporting it.

This Committee held a worksession on this bill on March 16 and scheduled this worksession to further explore questions raised at that worksession.

Summary/Background

Bill 38-05 would impose a temporary prohibition on the County's issuance of permits to construct or install mound septic systems or innovative or alternative individual sewage disposal systems. As introduced, this prohibition would expire on July 31, 2006.

The **purpose** of this bill, according to the sponsors, is to temporarily halt the use of sand mounds and other non-traditional individual sewage disposal technologies until the Council can examine recommendations from the Planning Board and other stakeholders on rural land use issues and agricultural economics, including the rate of residential development, proliferation of non-agricultural uses, economic sustainability and profitability of agriculture, and stress on the transfer of development rights (TDR) program. The sponsors concluded that technologies for sewage treatment that previously were not in wide use have opened more land for development than was envisioned in the Master Plan for the Preservation of Agricultural and Rural Open Space. They believe that increased housing and other construction in rural areas, at least partly enabled by the growing use of mound septic systems, may be changing the character of the agricultural reserve. For a more detailed explanation of these concerns, see the memo on ©28-30 from Council planning adviser Royce Hanson, who as Planning Board Chair was instrumental in the concept and design of the County's agricultural reserve.

For **background** on sand mound septic systems and current development in the rural areas of the County, see ©6-23. Sand mound septic systems are allowed by County regulation. The original regulation, Executive Regulation 28-93AM, was approved by Council Resolution 12-1503 on February 22, 1994.¹ That regulation, now codified at COMCOR (Code of Montgomery County Regulations) §27A.00.01, is still in effect; sand mounds are expressly authorized in §27A.00.01.05J and mentioned at several other places. Likewise, innovative or alternative individual sewage disposal systems are defined and authorized in that regulation.

Amendments circulated by the bill's sponsors (see ©33) would limit the temporary prohibition on the use of sand mounds or other alternative sewage disposal systems to those that would be located in the Rural Density Transfer (RDT) zone; extend the prohibition to October 31, rather than July 31; exempt non-residential agricultural buildings; and exempt 1-family residences built on "child lots" in the RDT zone. The sponsors also expressed their intent to consider further amendments that would limit the scope of the prohibition to developments above a certain size (for example, 5 dwelling units), and/or exempt previously approved developments. Options for and details of those amendments are discussed below.

The County Attorney's office raised the issue of potential state **preemption** of this sort of County legislation (see memo, ©5) because it would, albeit temporarily, prohibit a type of sewage disposal system that the state has expressly permitted. Since the last worksession, the County Attorney sent this Committee a more definitive memo on this topic (see Lattner memo, ©51-55, and email dialogue with Council staff, ©56), concluding that the temporary prohibition proposed in this bill would be preempted because it conflicts with the state regulations governing on-site sewage disposal systems. Council staff can analyze the legal issues further, but the County Attorney's memo makes a *prima facie* case for preemption.

Since the last Committee worksession, Council staff also received recommendations from the Agricultural Advisory Committee opposing the bill as revised (see letter, ©44-45); comments from the Planning staff (see Planning staff memo on ©46-50; the Board recommendations were not received when this packet went to print); and a list of pending plan applications and pre-applications in the RDT zone prepared by Planning staff (see ©57), indicating which developments propose to use sand mound septic systems. Also, as Committee members know, the Council President introduced a resolution to create an Ad Hoc Agricultural Policy Working Group (see ©58-59), which would review among other topics "uses of sand mound technology". This resolution is scheduled for Council action on April 4.

Issues

1) Sand mound moratorium? Should the use of sand mounds and other non-traditional sewage disposal systems in the agricultural reserve (defined as the Rural Density Transfer (RDT) zone) be put on hold for 6-7 months, as this bill proposes? During that time this Committee or the Ad Hoc Working Group could study the interrelated agricultural reserve issues that Mr. Hanson cited, including the effects of sand mounds on development patterns, whether or not this

¹That approval resolution contained a much-cited attachment, denoted "HEALTH DEPARTMENT POLICY Mound Systems", which appears to mandate certain procedures for testing mound systems (which, it noted, are approved by the State). However, the actual regulation, rather than this attachment, authorized the use of mound systems.

bill is in force. The pace of residential development in the RDT zone is currently not high (see DPS and Planning Board memos, ©21-23 and ©57), but that could change. In any event, advocates for this legislation stress that what they perceive as further large-lot residential encroachment in the RDT zone should be restrained without delay. **Council staff recommendation:** since, in our view, the sand mound issue is largely (but not completely) a proxy for concerns about increased exurban cluster development in the RDT zone, and since this bill is likely to be referred to the Ad Hoc Working Group rather than enacted now, add “size and nature of residential development in the agricultural reserve” to the Ad Hoc Working Group’s list of items to study.

2) **Coverage/exemptions** The bill as introduced, along with the amendments proposed by the bill’s sponsors (see ©33), would exempt from the moratorium those sewage disposal systems:

- Needed to replace failed septic systems for existing buildings;
- Needed to prevent a health emergency;
- For agricultural buildings; and
- For “child lot” single-family houses.

Much of the testimony opposing this bill came from agricultural reserve residents and property owners who hope to build 1 or a few single-family homes, using sand mound systems because no other sewage disposal system is feasible. Much of the testimony from proponents of the bill focused on preventing further large-lot developments in the RDT zone like the proposed 15-lot Stoney Springs development in Poolesville.² Taking each group at their word yields a surprising range of consensus – i.e., that only the use of sand mounds in relatively large (for the RDT zone) subdivisions needs to be restricted. If this Committee wants to allow individual single-family homes, or small developments, to be built during any moratorium, but preclude larger (>5 units) developments, you could add the following exemption:

- (e) construct a 1-family residence which is part of a development that:
 - (1) does not exceed 5 dwelling units at one location, as that term is defined in County Code Section 25A-3(b); and
 - (2) is not contiguous to any other development that exceeds 5 dwelling units.

3) **Grandfather clause?** Which if any pending applicants should be exempt from the moratorium, if there is one? This involves deciding *which step* an applicant must have already completed (e.g. subdivision application filed, subdivision approval, building permit issuance, septic test completion), and *by when* (date bill introduced, date bill becomes law, later date). A typical grandfather clause could insert the following in §3 of the bill:

This Act does not apply to any building for which either a building permit or a final septic permit was issued before this Act became law, or that is covered by a preliminary plan of subdivision that the Planning Board approved before this Act became law.

²For a defense of the Stoney Springs development, see Robert Harris’ letter and testimony on ©34-39. Also see the Planning Board Opinion on use of sand mounds in this property on ©40-43.

This packet contains:

	<u>Circle #</u>
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Expedited Bill No. 38-05
Concerning: Sewage Disposal – Septic
Systems – Temporary Prohibition
Revised: 11-7-05 Draft No. 1
Introduced: November 8, 2005
Expires: May 8, 2007
Enacted: _____
Executive: _____
Effective: _____
Sunset Date: July 31, 2006
Ch. _____, Laws of Mont. Co. _____

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

By: Councilmember Praisner and Council President Perez

AN EXPEDITED ACT to:

- (1) temporarily prohibit the use of certain individual sewage disposal systems; and
- (2) generally amend the law governing individual sewage disposal systems.

By amending

Laws of Montgomery County 2005

Boldface

Heading or defined term.

Underlining

Added to existing law by original bill.

[Single boldface brackets]

Deleted from existing law by original bill.

Double underlining

Added by amendment.

[[Double boldface brackets]]

Deleted from existing law or the bill by amendment.

* * *

Existing law unaffected by bill.

The County Council for Montgomery County, Maryland approves the following Act:

The Laws of Montgomery County 2005 are amended as follows:

Sec. 1. Temporary Prohibition.

Notwithstanding any provision of County Code Chapter 27A, any other County law, or any County regulation to the contrary, the Director of the Department of Permitting Services and any other County department or office must not issue a permit for the construction or installation of any mound septic system or innovative or alternative individual sewage disposal system.

Sec. 2. Exceptions.

This Act does not apply to the construction or installation of any septic system or other individual sewage disposal system that is necessary to:

- (a) replace a failed or malfunctioning system that serves a building built before this Act takes effect; or
- (b) respond to a public health emergency when no other alternative means of sewage disposal is feasible.

Sec. 3. Expedited Effective Date.

The Council declares that this legislation is necessary for the immediate protection of the public interest. This Act takes effect on the date on which it becomes law.

Sec. 4. Expiration.

This Act expires on July 31, 2006.

Approved:

Thomas E. Perez, President, County Council

Date

Approved:

Douglas M. Duncan, County Executive

Date

This is a correct copy of Council action.

Linda M. Lauer, Clerk of the Council

Date



LEGISLATIVE REQUEST REPORT

Expedited Bill 38-05

Sewage Disposal – Septic Systems – Temporary Prohibition

- DESCRIPTION:** Imposes a temporary prohibition on the County's issuance of permits to construct or install mound septic systems or innovative or alternative individual sewage disposal systems.
- PROBLEM:** New technologies for sewage treatment have opened more land for housing than was envisioned in the Master Plan for the Preservation of Agricultural and Rural Open Space. Increased housing and other construction in rural areas, at least partly enabled by the growing use of mound septic systems, may be changing the character of the agricultural reserve and related areas.
- GOALS AND OBJECTIVES:** To temporarily halt the use of new individual sewage disposal technologies until the Council can examine recommendations from the Planning Board on rural land use issues and agricultural economics, including the rate of residential development, proliferation of non-agricultural uses, economic sustainability and profitability of agriculture, and stress on the transfer of development rights (TDR) program.
- COORDINATION:** Planning Board, Department of Permitting Services, Department of Environmental Protection, Department of Economic Development
- FISCAL IMPACT:** To be requested.
- ECONOMIC IMPACT:** To be requested.
- EVALUATION:** To be requested.
- EXPERIENCE ELSEWHERE:** To be researched.
- SOURCE OF INFORMATION:** Michael Faden, Senior Legislative Attorney, 240-777-7905
- APPLICATION WITHIN MUNICIPALITIES:** Applies Countywide.
- PENALTIES:** Not applicable

38-05



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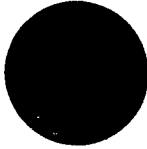
OFFICE OF MANAGEMENT AND BUDGET

MEMORANDUM

December 5, 2005

Douglas M. Duncan
County Executive

Beverley K. Swaim-Staley
Director



TO: Thomas E. Perez, President
County Council

018903

VIA: Bruce Romer
Chief Administrative Officer

FROM: Beverley K. Swaim-Staley, Director
Office of Management and Budget

SUBJECT: Bill 38-05, Sewage Disposal – Septic Systems – Temporary Prohibition

The purpose of this memorandum is to transmit a fiscal impact statement to the Council on the subject legislation.

LEGISLATION SUMMARY

The purpose of the legislation is to temporarily halt the use of new individual sewage disposal systems until the Council can examine recommendations from the Planning Board on rural land use issues and agricultural economics, including the rate of residential development, proliferation of non-agricultural uses, economic sustainability and profitability of agriculture, and stress on the transfer of development rights (TDR) program. The prohibition would expire on July 1, 2006.

FISCAL SUMMARY

The fiscal impact on the Department of Permitting Services is expected to be negligible. The department currently issues very few permits for the targeted types of septic systems, so no material impact is expected. There is no fiscal impact on the Department of Environmental Protection.

The following contributed to and concurred with this analysis: Robert Hubbard, Maggie Orsini, Millie Souders.

BKS:MCB

- cc: Robert Hubbard, DPS
- Maggie Orsini, DPS
- Millie Souders, DEP
- Joseph Beach, OMB
- Brady Goldsmith, OMB
- Mary Beck, OMB
- Doug Weisburger, OMB



Office of the Director

64



OFFICE OF THE COUNTY ATTORNEY

Douglas M. Duncan
County Executive

Charles W. Thompson, Jr.
County Attorney

MEMORANDUM

TO: Jay Beatty
Department of Permitting Services

FROM: Malcolm Spicer
Assistant County Attorney *MAS*

VIA: Marc P. Hansen, Chief *Marc Hansen*
Division of General Counsel

DATE: November 28, 2005

RE: Bill 38-05 Sewage Disposal-Septic Systems-Temporary-Prohibition

Bill 38-05 proposes to impose a temporary (7 to 8 months) prohibition on issuing a permit for the installation of a mound septic system or innovative or alternative individual sewage disposal system except when necessary to repair or replace a failed or failing system that serves a building built before this act takes effect.

This legislation raises an issue of preemption by conflict in that the State Department of the Environment regulations in Comar Title 26 allows the use of a mound system in an on-site sewage disposal system. Preemption by conflict exists if a local ordinance prohibits an activity which is intended to be permitted by state law or permits an activity which is intended to be prohibited by state law. See *Perdue Farms, Inc. v. Hadder*, 109 Md. App. 582 (1995).

DEC 01 2005

cc: Rebecca Domaruk

(OS)

Decentralized Systems Technology Fact Sheet Mound Systems

DESCRIPTION

The mound system was originally developed in North Dakota in the late 1940s and called the NODAK disposal system. Some soil types are unsuitable for conventional septic tank soil absorption systems. As a result, alternative systems such as the mound system can be used to overcome certain soil and site conditions.

The mound design in predominate use today was modified from the NODAK design by the University of Wisconsin-Madison in the early 1970s. Although there are now many different mound designs in use, this fact sheet will focus on the Wisconsin design. The Wisconsin mound has been widely accepted and incorporated into many state regulations.

The three principle components of a mound system are a pretreatment unit(s), dosing chamber and the elevated mound. Figure 1 illustrates a Wisconsin mound system.

APPLICABILITY

Mounds are pressure-dosed sand filters that discharge directly to natural soil. They lie above the soil surface and are designed to overcome site restrictions such as:

- Slow or fast permeability soils.
- Shallow soil cover over creviced or porous bedrock.
- A high water table.

The main purpose of a mound system is to provide sufficient treatment to the natural environment to produce an effluent equivalent to, or better than, a conventional onsite disposal system.

ADVANTAGES AND DISADVANTAGES

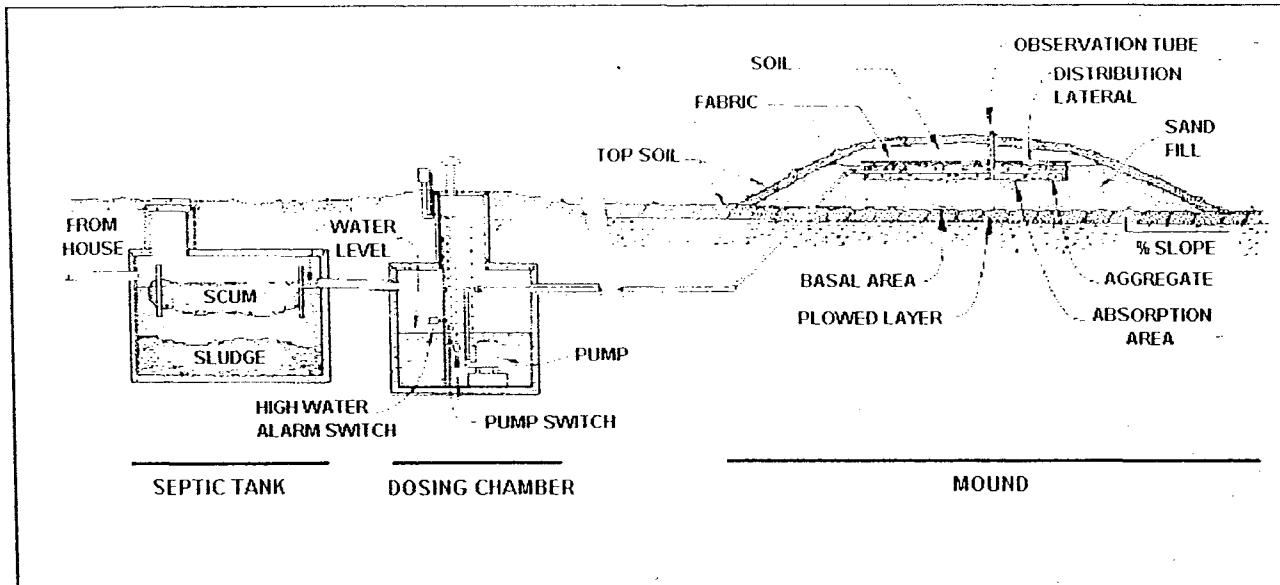
Listed below are some advantages and disadvantages of mound systems when compared to other alternative onsite systems.

Advantages

- The mound system enables use of some sites that would otherwise be unsuitable for in-ground or at-grade onsite systems.
- The natural soil utilized in a mound system is the upper most horizon, which is typically the most permeable.
- A mound system does not have a direct discharge to a ditch, stream, or other body of water.
- Construction damage is minimized since there is little excavation required in the mound area.
- Mounds can be utilized in most climates.

Disadvantages

- Construction costs are typically much higher than conventional systems.



Source: Converse and Tyler, Copyright © by the American Society of Agricultural Engineers, reprinted with permission, 1987.

FIGURE 1 SCHEMATIC OF A WISCONSIN MOUND SYSTEM

- Since there is usually limited permeable topsoil available at mound system sites. Extreme care must be taken not to damage this layer with construction equipment.
- The location of the mound may affect drainage patterns and limit land use options.
- The mound may have to be partially rebuilt if seepage or leakage occurs.
- All systems require pumps or siphons.
- Mounds may not be aesthetically pleasing in unless properly landscaped.
- 1) Leaving the topsoil in place but plowing it before placement of the fill.
- 2) Using a coarse sand fill meeting grain size distribution specifications.
- 3) Using pressure to uniformly distribute the effluent over the seepage area.

Soil Depth

A suitable depth of soil is required to treat the effluent before it reaches the limiting condition, such as bedrock, a high water table, or a slowly permeable soil layer. Although the separation distance varies, it is usually between 1 and 4 feet.

Site and Design

To date, siting and design experience at sites suitable for mound systems indicates that absorption systems should be long and narrow and should follow the contour (i.e., level). The more restrictive the site, the narrower and longer the system. Table 1 gives the soil criteria for a Wisconsin mound based on research and field experience.

DESIGN CRITERIA

Two factors that determine the size and configuration of a mound are; how the effluent moves away and the rate at which it moves away from the system. The prediction of the movement and rate of movement is done from studies of the soil and site information obtained. To ensure proper performance of the mound system, the following concepts must be included in the design and construction process:

TABLE 1 RECOMMENDED SOIL AND SITE CRITERIA FOR THE WISCONSIN MOUND SYSTEM BASED ON RESEARCH AND FIELD EXPERIENCE

Parameter	Value
Depth of high water table (permanent or seasonal)	10 in.
Depth to crevice bedrock	2 ft.
Depth to non-crevice bedrock	1 ft.
Permeability of top 10 in.	Moderately low
Site slope	25%
Filled site	Yes ^a
Over old system	Yes ^b
Flood plains	No

a Suitable according to soil criteria (texture, structure, consistence).

b The area and backfill must be treated as fill because it is a disturbed site.

Source: Converse and Tyler, 1990.

High Water

The high water table is determined by direct observation (soil boring), interpretation of soil mottling, or other criteria. The bedrock should be classified as crevice, non-crevice semi-permeable, or non-crevice impermeable. This will determine the depth of sand media required.

Percolation and Loading

Percolation tests are used in some jurisdictions to estimate the soil permeability because they are empirically related to the loading rate. Loading rates should be based on the soil texture, structure, and consistence, using the percolation test only to confirm morphological interpretations.

Mounds

Mounds can be constructed on sites with slopes up to 25%. The slope limitation is primarily for construction safety, because it is difficult to operate equipment on steep slopes, and they pose a construction hazard. From a hydraulic perspective, mounds can be positioned on steep slopes.

Sites

In the case of filled sites, fill material is placed on top of the natural soil and may consist of soil textures ranging from sand to clay. Sufficient time must be allowed for the soil structure to stabilize before constructing a system. Many more observations are required for filled areas.

When evaluating the soil loading rate for a mound over an old or failing in-ground system, the soil over the system must be considered to be disturbed, and thus, treated as a filled site. If a mound is to be placed over a large in-ground system, a detailed evaluation of the effluent movement should be done.

Mounds should not be installed in flood plains, drainage ways, or depressions unless flood protection is provided. Another siting consideration is maintaining the horizontal separation distances from water supply wells, surface waters, springs, escarpments, cuts, the boundary of the property, and the building foundation. Sites with trees and large boulders can make it difficult in preparing the site. Trees should be cut to the ground surface with tilling around stumps. The size of the mound should be increased to provide sufficient soil to accept the effluent when trees and boulders occupy a significant amount of the surface area.

The actual size of a mound system is determined by estimating the sand fill loading rate, soil (basal) loading rate, and the linear loading rate. Once these values are established, the mound can be sized for the site. The final step is to design the effluent distribution network and the pumping system.

PERFORMANCE

One factor that determines good performance is the type of sand fill material. A suitable sand is one that can adequately treat the wastewater. Suitable sand should contain 20% or less material greater than 2.0 mm and 5% or less finer than 0.053 mm. It should also have a size distribution that meets certain sieve analysis specifications, ASTM C-33 specifications, or meets limits for effective diameter and coefficient of uniformity.

For design of residential mounds, the daily wastewater volume is determined by the number of bedrooms in a house. Typical design flow requirements for individual homes are up to 150 gallons per day (gpd) per bedroom. Design specifications for mound systems are usually the same for both large and small flows for typical domestic septic tank effluent. Higher strength wastes must be pretreated to the levels of domestic septic tank effluent, or lower hydraulic loading rates may be applied.

IMPLEMENTATION

In Wisconsin, the success rate of the mound system is over 95%, which is due to their emphasis on siting, design, construction and maintenance.

Years of monitoring the performance of mound systems have shown that mounds can consistently and effectively treat and dispose of wastewater. Studies have shown evidence that some nitrogen removal does occur in mound systems when approximately 2 feet of natural unsaturated soil is below the fill material.

Mound Systems in Wisconsin (State-Wide)

Using relatively conservative soil criteria, many states have accepted the Wisconsin mound system as an alternative when conventional in-ground trenches and beds are not suitable. The Wisconsin mound system has evolved into a viable onsite system for the treatment of wastewater from individual, commercial, and community systems by overcoming some of the site limitations and meeting code requirements and guidelines.

In 1978, an experimental study was initiated to evaluate soil/site limitations for the Wisconsin mound (see Converse and Tyler, 1987a). The objectives of this research study were to determine whether the existing soil/site limitations on mounds were too restrictive and to determine the minimum soil/site limitations under which the mounds would perform without affecting public health and the environment. The experimental approach was to design, construct, and evaluate sites with mound systems that currently did not meet code requirements due to failing systems.

The sites selected for this study had to fit the objectives of the research and generate a reasonable amount of wastewater to be mound treated. The sites selected had to have:

1. Fill soil placed over natural soil.
2. A high water table where the seasonal high water table level was less than 60 cm below the ground surface.
3. Slowly permeable soils that were rated slower than moderately permeable soils.
4. Steep slopes greater than 12%.
5. Mounds over existing failing systems.
6. A combination of the above.

Over 40 experimental mounds were constructed between 1979 and 1983 on sites that did not meet the code requirements; 11 of these mounds are described in detail in this study. Site evaluations were done by certified soil scientists, plans prepared by designers were reviewed and approved by the state, and licensed contractors installed the systems with inspections by county sanitarians during construction.

The study concluded that the overall performance of the mounds was very good. The systems functioned satisfactory on filled sites, on sites with a high water table (seasonal water table 25 to 30 cm from the ground surface), on steep slope sites (up to 20 to 25%), on sites with slowly permeable soil, and on top of failing systems. Leakage occurred at the base of the mound on some sites during extremely wet conditions, but the effluent quality was good, with fecal counts generally less than 10 colonies per 100 ml in saturated toe effluent. It was found that Wisconsin mound systems can be constructed on difficult sites if the system is designed using linear loading rates, which are established based on the horizontal and vertical acceptance rates of the soil for each system.

Failure of Mound System in Wisconsin

Expansion of a Wisconsin firm's mound system in 1978, resulted in a clogging and seepage problem. The system was originally built to handle 65 employees at 750 gpd and was now serving a staff of 165. This expansion created a failure of the mound system due to hydraulic overload. To solve this problem, the mound system was expanded and a water conservation program was initiated. The expansion of the mound increased the hydraulic capacity to 2,600 gpd (Otis, 1981.)

In November 1979, the mound system failed again—this time due to a biological clogging mat. The clogging mat was removed by using 450 gallons of a 10% solution of hydrogen peroxide. The mound system was operating successfully within 2 days. However, further research indicates that for structured natural soils other than sand, hydrogen peroxide may reduce the soil infiltration rate, and thus, may not be an effective procedure to eliminate soil clogging.

A third failure occurred in January 1980, again due to hydraulic overload. The firm had expanded its employee base to 215 employees, with an average daily flow of 3,000 gpd. There was no room available to expand the mound system itself, so the firm redesigned the pumping chamber to avoid large peak flows, allowing the mound system to receive optimum dosing without failure.

OPERATION AND MAINTENANCE

The septic tank and dosing chamber should be checked for sludge and scum buildup and pumped as needed to avoid carryover of solids into the mound. Screens or filters can be used to prevent large solids from escaping the septic tank. The dosing chamber, pump, and floats should be checked annually and replaced or repaired as necessary. It is critical that the septic tank and dosing chamber be watertight. In addition, electrical parts and conduits must be checked for corrosion. Flushing of the laterals annually is recommended.

When a mound system is properly installed and maintained, it should last for a long period of time.

In general, the maintenance required for mounds is minimal. However, as with any system, poor maintenance could lead to early system failure. Possible problems that can occur in an improperly designed or constructed mound system include:

- Ponding in the absorption area of the mound.
- Seepage out of the side or toe of the mound.
- Spongy areas developing on the side, top, or toe of the mound
- Clogging of the distribution system.

Practices that can be used to reduce the possibility of failure in a mound system include:

- Installing water-saving devices to reduce the hydraulic overload to the system.
- Calibrating pumps and utilizing event counters and running time meters.
- Timed dosing to dose equally sized doses on regular intervals throughout the day.
- Diverting surface water and roof drainage away from the mound.
- Preventing traffic on the mound area.
- Installing inspection tubes in the mound to check for ponding.
- Keeping deep-rooted plants (shrubs and trees) off the mound.
- Planting and maintaining grass or other vegetative cover on the mound surface to prevent erosion and to maximize water uptake.
- Stand-by power for the pump.

Follow all instructions recommended by the manufacturer. All equipment must be tested and calibrated as recommended by the equipment manufacturer. A routine operation and maintenance (O&M) schedule should be developed and followed

for any mound system in addition to checking local codes.

COSTS

The cost of a mound system is dependent on design costs, energy costs, the contractor used, the manufacturers, land, and the characteristics of the wastewater. Table 2 lists some typical capital and O&M costs for a mound system serving a three-bedroom single home at a flow rate of 450 gpd (150 gallons per bedroom). Septic tank costs were estimated at \$1 per treated gallon. It should be noted however, that costs will vary from site to site. To keep construction costs to a minimum, use good quality and local materials, when available.

TABLE 2 TYPICAL COST ESTIMATE FOR A MOUND SYSTEM (SINGLE HOME)

Item	Cost (\$)
Capital Costs	
Construction Costs	
Septic tank (1000 gallon concrete tank)	1,000
Dosing chamber (includes pump and controls)	2,000
Mound structure	6,000
Total Construction Costs	9,000
Non-Component Costs	
Site evaluation	500
Permits	250
Total Costs	9,750
Annual O&M Costs	
Labor @\$20/hr.	20 per year
Power @8 cents/kWh	35 per year
Septic tank pumping	75 to 150 every 3 years

Source: Ayres Associates, Inc., 1997.

REFERENCES

1. Converse, J. C. and E. J. Tyler. 1987a. *On-Site Wastewater Treatment Using Wisconsin Mounds on Difficult Sites. Transactions of the ASAE.* 1987. American Society of Agricultural Engineers. vol. 30. no. 2. pp. 362-368.
2. Converse, J. C. and E. J. Tyler. 1987b. *Inspecting and Trouble Shooting Wisconsin Mounds. Small Scale Waste Management Project.* University of Wisconsin-Madison. Madison, Wisconsin.
3. Converse, J. C. and E. J. Tyler. January 1990. *Wisconsin Mound Soil Absorption System Siting, Design, and Construction Manual. Small Scale Waste Management Project.* University of Wisconsin-Madison. Madison, Wisconsin.
4. Otis, R. J. 1981. *Rehabilitation of a Mound System. On-Site Sewage Treatment: Proceedings of the Third National Symposium on Individual and Small Community Sewage Treatment.* American Society of Agricultural Engineers. St. Joseph, Michigan.
5. U.S. Environmental Protection Agency (EPA). 1980. *Design Manual: Onsite Wastewater Treatment and Disposal Systems.* EPA 625/1-80-012, EPA Office of Water. EPA Municipal Environmental Research Laboratory. Cincinnati, Ohio.

ADDITIONAL INFORMATION

Mr. Richard J. Otis, Ph.D., P.E., DEE
Ayres Associates
2445 Darwin Road
Madison, WI 53704-3186

National Small Flows Clearing House at
West Virginia University
P.O. Box 6064
Morgantown, WV 26506



P.O Box 1270 Edgewater, MD 21037
410-798-9842 410-798-5741 (fax)

November 17, 2005

Honorable Thomas Perez, President
Members of the Montgomery County Council
County Office Building
100 Maryland Avenue
Rockville, Maryland 20850

RE: A statement opposing the proposed "Expedited M.Co Bill #38-05 – Sewage Disposal – Septic Systems – Temporary Prohibition"

County policy officials throughout Maryland have had a long tradition of using water and sewer capacity as both a zoning and growth management tool. Neither of which is legal or justified. The recent Montgomery County Council proposal to prohibit the use of sand mounds as a viable wastewater treatment technology, as a tool to address zoning issues in rural zones is an example of this continued and unwise practice.

The Maryland Onsite Wastewater Professionals Association (MOWPA) urges the Montgomery County Council to support the enforcement of existing legislation it has governing the use of land, instead of applying an unjustified moratorium on the use of onsite systems. Furthermore, the Council is advised that its proposed actions are in direct conflict with existing MD COMAR regulations – you cannot eliminate the use of a technology that is already a legally permitted use within the State regulations. The Maryland Onsite Wastewater Professionals Association is the state organization representing the industry practitioners who provide the technical resources to ensure that water quality is protected. This organization has reviewed the proposed "expedited legislation" imposing a moratorium on the use of onsite systems and opposes its purpose.

Attention is also directed to the November 14th article of the Washington Post, on this topic. In that article, the reporter referenced comments made by several individuals about sand mounds that need to be addressed. First, the use of sand mounds as a treatment technology for wastewater is neither an innovative system nor a negative impediment to the environment. Quite to the contrary, they often provide significant contributions to the geographic area in which they are located.

Sand mounds were developed to overcome the soil and site limitations of the conventional septic tank–soil absorption system. Sand mounds are septic tank – soil absorption units in that they use the imported sand and the native soil to provide the treatment. If properly sited, constructed and maintained, they provide an effluent to the environment that is equal to or in many cases even better than the conventional septic tank –soil absorption system.

Over the past twenty years, the onsite wastewater industry has made many technological advances to overcome soil and site limitations that even sand mounds do not address. With good management practices these new technologies, which includes septic tanks, aerobic

treatment, drip distribution systems, at-grades and mounds along with other treatment units, can overcome many of the soil and site limitations that restrict the development of land parcels.

Unfortunately, many policy officials have in the past, and are continuing today to use the septic tank as the "scapegoat" or de facto land management tool. Land use planners and the public need to understand that the science and technology of onsite treatment has made many advances that make this type of thinking obsolete. Today, sand mounds are but one of many types of onsite system technology that can be used where poor soil conditions exist.

As a result of the advancements made, In 1997, the U.S. Environmental Protection Agency reported to congress that: ***"Adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals within the nations wastewater infrastructure . . ."*** In 2002, EPA issued guidelines as to how decentralized systems must be managed. This means that the use of onsite technology and the application of decentralized systems for the wastewater infrastructure is no longer considered innovative. The use of these systems are in fact an important part of the new paradigm of integrated water resources management that takes into consideration effective watershed planning methodologies. The key component today, as compared to 30 years ago, is that these systems must be properly designed, installed managed and serviced by competent and certified practitioners. Similarly, system owners must be educated and knowledgeable about their systems and use.

An example is the recent characterization of the use of a mound system as a tool to "permit pods of development to occur in such a way that it fragments the agricultural land and therefore runs against the purpose of zoning and particularly of the master plan." This statement reflects a true ignorance of the technology, and a perpetuation of archaic thinking.

Instead, policy officials and land use planners need to use the new methodologies provided by onsite technology to preserve lands that should be preserved and allow other lands to be developed which were previously unable to be developed due to soil and site restrictions. These technology advances now allow for better planning for the betterment of society. There are excellent examples provided in Rhode Island of how to address these issues. In February MOWRA is hosting a conference that demonstrates these new planning methodologies.

Members of the onsite industry, who's national association headquarters is located in Maryland, are available to support the public officials in making sound policy decisions about the use of new technology. We urge you not to pursue this current approach that restricts a valuable technology that can support you in achieving water quality goals and preservation of farmland by clustering retained development rights. We also urge you to support future state legislation being sponsored by MOWPA. This legislation advocates that all practitioners within the state of Maryland who are designing, installing, inspecting and servicing these systems are licensed with industry certification demonstrating they have completed specific education and training programs.

Linda Hanifin Bonner, PhD
Executive Director
Maryland Onsite Wastewater Professionals Association
National Onsite Wastewater Recycling Association

Cc:

73

o, Annette

Perez's Office, Councilmember
Wednesday, November 16, 2005 9:22 AM
Montgomery County Council
FW: Background on Sand Mound Septic Systems

Original Message-----

Wayne Goldstein [mailto:waynengoldstein@hotmail.com]
Wednesday, November 16, 2005 12:29 AM

Wenthal's Office, Councilmember; Denis' Office, Councilmember; Praisner's Office,
Councilmember; Knapp's Office, Councilmember; Subin's Office, Councilmember; Floreen's Office,
Councilmember; Andrews' Office, Councilmember; Silverman's Office, Councilmember; Perez's
Office, Councilmember
Subject: Background on Sand Mound Septic Systems

Councilmembers:

Expedited Bill 38-05 - Sewage Disposal Septic Systems Temporary
Provision

Sand mounds have been around for decades and are extensively used in
Maryland because that is the only way that a number of houses can be
built at all. It seems that it's an imperfect solution to an economic
development issue in less prosperous areas. I found nothing about needing to
allow people to be able to build six-bedroom mansions in
rural areas. The owners of these very large structures have to be
careful about how they use water, what they put in the wastewater and
how much wastewater they generate or they will be frequently replacing
expensive components and will need enormous drainage fields the size of
the soccerplex.

A perfectly constructed and perfectly maintained sand mound system can
work well, but the failure rate can be high if these activities are not done
completely right. There is little room for error. Sand mounds are needed in
the Gaithersville area because the clay soil greatly limits absorption.
In fact, sand mounds over clay soils are considered to be "nonconventional
wastewater treatment" under evaluation." according to the Maryland Department of the
Environment's 2003 edition.

Where sand mounds have been around for a while, anecdotal and objective
information indicate that there appears to be such significant reliability
problems that a number of companies have emerged promoting new, untested
techniques that are supposed to fix the inherent risks of sand mounds.
Montgomery County may not yet have the number of systems operating for a
long enough period of time to start to reveal such reliability problems.

I support Expedited Bill 38-05 and look forward to the results of any
action done related to the issue.

Wayne Goldstein 301-942-8079
Member, Montgomery County Civic Federation Environment Committee

A useful analogy may be to compare sand mounds over clay soils to
plastering stucco over wood. If there are any flaws in using either system,
the consequences can be devastating.

<http://www.bobvila.com/BBS/Miscellaneous/788/789/tree-pagel.html>
11/16/05 12:29 AM - ... EIFS is basically a styrofoam placed on the outside
of a house and then a "stucco" look alike finish on the styrofoam. As
applied to concrete based stucco, any settling in the house with EIFS is
designed to absorb the changes without cracking. Unfortunately, if the EIFS
is applied on a wood framed home, it has a tendency to keep any
moisture that leaks into the house, inside the walls, which has led to
rotting of the wood and frames of many of the homes.

[/www.mde.state.md.us/assets/document/water/Sand%20Mound%20Manual.pdf](http://www.mde.state.md.us/assets/document/water/Sand%20Mound%20Manual.pdf)
and Construction Manual for Sand Mound Systems - June 2003 (4th
ed.) MD DEP

Typically in Maryland, sand mound systems that meet conventional on-site
disposal criteria are designed to overcome high water tables or
shallow soils over fractured bedrock and are approved for routine use. Sand
mound systems on slowly permeable soils, with rates in excess of 60 minutes
per inch, are currently nonconventional and still under evaluation.

[/www.laundry-alternative.com/sand_mound_septic_system.html](http://www.laundry-alternative.com/sand_mound_septic_system.html)
Sand mound septic systems are really the grand daddy of alternative systems.
They were developed in '60s by the University of Wisconsin and can pretty
well be used in any situation.

Drawbacks to a sand mound are:
They are more expensive. They are ugly. They fail more frequently than a
conventional system.

The main things that kill sand mound septic systems are: Suspended solids in the effluent.
Overloading the system with water.
Adding too many harsh chemicals into the system, killing off the bacteria
in the septic tank and soil.

[//www.franconiatownship.org/newsletters/franc_talk_Fall03.pdf](http://www.franconiatownship.org/newsletters/franc_talk_Fall03.pdf)
Franconia Township, PA Sewer Authority

Septic systems and sand mounds function by allowing solids to settle in the
septic tanks and dispose of suspended solids (gray water) to the drainage
beds or sand mound. Septic systems and sand mounds fail because of blockage,
usually caused by too many solids carrying over with the gray water from
septic tanks to the drainage beds or sand mound.

Blockage occurs if settleable solids in the septic tanks are not regularly
pumped out every four years or sooner, depending on the system and household
size. Over time, settleable solids carried over into the gray water will
usually make the drainage beds or sand mound impervious, thus causing the
untreated wastewater to rise to the surface. A breakout of untreated sewage
on the surface is a serious health risk.

[//www.thefrca.org/id8.html](http://www.thefrca.org/id8.html) The Falls Road Community Association Well
Septic concerns for Baltimore County - The following is the text of the
letter sent to David A. Carroll, Director, Baltimore County DEPRM on 7/11/03
criticizing the County's approach to development and wells. 14. Sand-mound
septic systems should not be permitted. Lands with poor soil conditions
should not be developed.

[//www.charlestown.org/ct-org/ct-gov/ctbsmtg0397.asp](http://www.charlestown.org/ct-org/ct-gov/ctbsmtg0397.asp)
Charlestown Township, PA Board of Supervisors Business Meeting - March 3,

Mr. Sauser asked for an explanation of why five lots need to use sand
mound septic systems since there is no high ground water on the tract. Mr.
Kling (Jr.) responded that the soil is mottled on these lots, and according
to the County Health Department and the Pa. Dept. of Environmental
Protection, they are then defined as limiting zones which in turn
necessitate sand mound systems. He stated that all lots have passed perc
tests. Mrs. Ewald asked if there are secondary approved sites in the event
the original sites fail. Mr. Kling (Jr.) responded that testing has not been
done, but a second system site has been delineated for each lot, and the
lot is to be left undisturbed and held in reserve.

He stated that the failure rate for sand mound systems has decreased in
recent years due to better construction and improved controls. Mrs. Ewald
referred to a house near the Zeigler tract that has had 4 failed sand mound
systems in the 7 years since the house was built, and believes that the

ed systems will also be likely to fail. Mr. Kling (Jr.) stated that
ound systems are acceptable to the Chester County Health Department.
n said that he had given input to the Planning Commission indicating
e wished to see alternative site testing performed.

/www.charlestown.org/ct-org/ct-gov/ctpcmtg0799.asp
stown Township Planning Commission - Minutes of July 13, 1999

egard to septic systems, Mr. Smiley stated that they are able to
e either a gravity system or a subsurface drip irrigation system for
ot. Mr. Kohli stated that the County Health Department requires
pal monitoring of drip irrigation systems and that Charlestown
ip is not willing to undertake this responsibility. Furthermore, this
f system is not included in the Township Act 537 Plan, making the only
ate to a standard gravity system a sand mound system, for which the
ination of an alternative backup site will be required. Mr. Dobson
bed how drip irrigation systems operate, stating that this method is
rovement over sand mound systems. Mr. Kohli said that the County is in
ocess of reviewing the use of drip irrigation systems and that the
is still adjusting its ordinances on individual systems of this type.

/www.charlestown.org/ct-org/ct-gov/ctbsmtg0300_2.asp
of Supervisors, Charlestown Township. Regular Meeting - March 20,

wald asked why they assume the system will work. Mr. Stabile responded
ing the initial perc test performed by the County Health Department.
ie Township's approval to build the house. Mrs. Ewald stated her
n that she's watched these types of systems for 14 years and knows of
r Howell Road that has failed five times at a tremendous cost to the
ty owners. She said the applicants should see their current situation
big red flag. There has been a history of sand mound failures in
estown Township, whether the systems were constructed well or not, and
ownship discourages them for this reason. She's not certain the Board
be doing them a favor by approving a temporary measure. She has strong
vations about it, particularly since the Township Engineer recommends
st it.

//server.age.psu.edu/extension/factsheets/f/F164.pdf
ted Sand Mounds for On-Lot Wastewater Treatment

//www.ecoflopa.com/homeownerFaq.php
are the advantages of an Ecoflo® system? ... Unfortunately, in sand mound
ms, it is possible for partially treated wastewater to breakout from
ides of the bed and cause a significant health hazard. Ecoflo® was
ved for use statewide on May 11, 1998.

//filebox.vt.edu/cals/cses/reneau/projects/froyal.html
esign and construction of mounds in the state of Virginia follow the
gn and Construction Manual for Wisconsin Mounds", prepared by the
ultural Engineering Department of the University of Wisconsin - Madison
1 September 1978.

//www.uakron.edu/geology/aop/nwsltrs/v30n1.pdf
ice Failure Rates of Chamber and Traditional Aggregate-Laden Trenches in
on

Failures during wet seasons typically exceeded those during dry
ons, but not always. For instance, dry-season failure rates were very
(even for young systems) when the infiltrative surface was too small
the soil conditions (Hoover, 1979). Hoover measured failure rates of 30
9 percent for sand mound systems three years old and younger during a
season summer-time assessment in Pennsylvania.

ISO, past failure rate studies have illustrated the impacts of
oration of a proactive management program and improvement of the soil
e expertise of the regulatory agency's field staff on reduction of
e rates. Lindbo et al (1998) reported very low failure rates (5
t) in a survey of sand-lined and traditional aggregate-laden trench
s that were very effectively sited, designed, installed, monitored,
intained. These systems performed much better than the 12 to 20
t failure rates measured five years earlier by Hoover et al. (1993)
stems less than five years old in the same four-county area.



DEPARTMENT OF PERMITTING SERVICES

Douglas M. Duncan
County Executive

Robert C. Hubbard
Director

MEMORANDUM

March 13, 2006

To: Nancy Floreen, Chair
Transportation and Environment Committee
County Council

From: Robert C. Hubbard, ^{RCH} Director
Department of Permitting Services

Subject: Bill 38-05 Sewage Disposal- Septic Systems-Temporary Prohibition

Please find attached a numerical breakdown of existing and future sand mounds. In addition, we have included some general information on sand mounds. Should you or your staff have any questions please contact Jay Beatty, Manager of the Well and Septic Section, at 240-777-6340.

Cc: ✓ Michael Fadden, County Council Staff
Jeremy Criss, DED.



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SAND MOUND SEWAGE DISPOSAL SYSTEMS

A sand mound is an on-site sewage disposal system that is elevated above the natural soil surface in a suitable sand fill material. A gravel filled bed is constructed in the sand fill and effluent from a dual compartment septic tank is pumped into the gravel bed through a pipe distribution network. The effluent then trickles down thru the sand. The sand serves to filter the effluent very effectively. A grassed soil covering is then placed over the sand. The result is low, flat, rectangular "mound" on the property. The average size mound is 33 ft. wide x 90 ft. long x 4.5 ft. in height.

Sand mounds are used commonly throughout the state and the nation. Maryland began to explore the use of mound systems in the early 1980's. Some previous experiments with mounds, including several systems built in Montgomery County in the late 1970's, showed promise over older, traditional, underground "trench" systems. These mound systems could be placed on properties with adverse soil conditions, such as shallow bedrock or perched water tables, and still function satisfactorily. By 1985 the Maryland Department of the Environment was publishing guidelines for sand mound construction. Formal inclusion in the State of Maryland Regulations (COMAR) as a conventional sewage treatment method, was accomplished in 1986.

Sand mound use in Montgomery County began in the very late 1980's with a few established properties as repairs for failing existing systems. Initially, there were no proposals to subdivide properties using sand mounds. In 1994, the County's Executive Regulation, dealing with sewage disposal, was revised and sand mound requirements were included. The State protocol for testing, design, and construction was adopted with little change.

The mound system can sometimes be used to overcome site limitations which would preclude the use of other traditional, underground trench type sewage disposal systems. Such site limitations include high water tables and shallow soils over bedrock. Sand mound systems cannot be approved for all sites, the requirements for slope, permeability, and other design features have to be satisfied. However, there are properties that can develop using mound systems that could not be developed using conventional underground "trench" systems.

The "track record" with mounds has been excellent. The success rate for mounds is at least as high as it is with underground systems. Among those properties that have been tested, approved, and constructed in accordance with the current requirements there are no documented failures. This includes approximately 40 mound systems constructed for new dwellings.

Further, it is widely accepted that mound systems provide a better level of treatment for the septic tank effluent over traditional trench type systems. This occurs primarily by virtue of the filtration effect of the sand above the soil. The sand provides a medium where millions of aerobic bacteria grow which have the ability to digest sewage effluent very effectively. In addition, the application of the treated effluent at the level of the topsoil makes maximum use of the available soil for further renovation. Sand mounds represent a valuable and important step forward, environmentally, in the treatment of septic effluent.

The disadvantages of the mound system include costs and aesthetics. The average cost of mound systems constructed in the county is \$20,000-\$25,000. Some owners may find this system aesthetically objectionable due to the construction of the mounded area in the yard.

Sand mound installation is a highly regulated activity. Sand mound engineering plans are detailed and site specific. Sand mound systems are reviewed and permitted and inspected by the local County government agencies throughout the State. Sand mound contractors must pass a State approved course on their installation. A good reference on sand mounds is the "Design and Construction Manual for Sand Mound Systems" published by the Maryland Dept. of the Environment.

Maintenance of sand mound systems is very similar to that of traditional septic systems. The septic tank should be pumped every two to five years depending on use. The pump system will need repair and/or replacement approximately every 5-10 years.

SAND MOUND APPROVALS
Department of Permitting Services

Subdivision numbers reflect a MNCPPC list of all approved subdivisions in the RDT since 1988. Construction numbers reflect only those "modern-day" mounds built since the 1999 implementation of the DPS Hansen automated permitting system.

A. Number of approved subdivision plans in the RDT with:

Trench systems.....113 plans
Sand mounds.....14 plans

B. Number of lots w/ the 14 sand mound plans.....44 lots

Of those 44 lots:18 are constructed
.....26 are vacant (15 via one plan)

C. Constructed sand mounds since 199945

45 sand mounds installed by category:
a. New homes on subdivided lots.....14
b. New homes on "exempt parcels".....17
c. New homes as tenant farm houses.....3
d. Repairs for existing homes.....11

Additional notes:

1. There were approximately **5** sand mounds constructed in the period of **1980 - 1989**. These were primarily experimental repairs for homes with septic failures on very difficult soils.
2. The State of Maryland adopted sand mound technology for new construction in 1986, but the county did not begin to issue sand mound approvals until **1989**. These applications were limited to repairs, the construction of farmhouses on large agricultural tracts, and a few "exempt" parcels. The use of sand mounds to facilitate subdivision approval began very slowly thereafter, from **1995 - 1997**.
3. The number of sand mounds estimated to have been approved and constructed via item 2 above is approximately **25**.

4. Therefore the estimated total number of existing sand mounds:

Constructed from 1980 -1989.....	5
Constructed from 1989 -1999.....	25
Constructed since1999.....	45
Total.....	75

(26 future sand mounds on approved lots in the pipeline.)

Faden, Michael

From: Greene, Matthew [Matthew.Greene@MNCPPC.ORG]
Sent: Wednesday, November 23, 2005 3:00 PM
To: Faden, Michael
Cc: Moritz, Karl; Conlon, Catherine; Weaver, Richard; Zyontz, Jeffrey L., Esq.; Carter, John; Daniel, Judy; Cary, Steve
Subject: rural pipeline

Mike,

I hope the information provided here suits your needs. The methods and data sources used were a little complex so I'll spare you the details, however, I'd be glad to answer questions or rework the data as needed. The basic story is that we do track the status of approved development - the Pipeline - as it gets built out.

The results show that 562 housing units are approved and remain to be built in the RDT, Rural, RC, and RNC zones. These units are broken out by zone and unit type in the table below. The attached file has detailed records for all 81 plans. I should also note that the pipeline only tracks the status of approved preliminary and site plans. The creation of up to five lots is permitted in the RDT zone under the minor subdivision procedure. However, many of these lots fail the septic requirements and never show up to be platted. Therefore, we tend not to recognize minor subdivisions in the data collection process until they appear for record plat approval. Based on the volume of plats processed each year, our Development Review Division estimates that there are no more than 50 approved and unbuilt housing units in the rural areas of the County due to minor subdivisions.

Pipeline Units Remaining in the RDT, Rural, RC, and RNC Zones

Zone	Number of Plans	Single-family Detached Units	Single-family Attached Units	Total Units
RC	32	137		137
RDT	29	104		104
RNC	8	278	20	298
RURAL	4	15		15
WSSC Plans	8	8		8
Total	81	542	20	562

Non-residential is more difficult to summarize. There are only nine plans with approved non-residential development in the "rural" zones mentioned above. They include several educational and religious institutions as well as a landscape contracting business, a daycare facility, a youth center, and a self-storage facility. Also included is 2,000 square feet of retail associated with a thirty-unit development that is included in the residential data above. Please see the attached file for the full information on these nine plans.

Thanks,

Matt

<<rural pipeline councilmember Knapp 051123.xls>>

Matthew Greene, AICP | Senior Research Planner | Montgomery County Dept. of Park & Planning
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Ph: 301.495.4723 | Fax: 301.495.1305
www.mcparkandplanning.org

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MEMORANDUM

February 6, 2006 Replaces Memo of Feb.2

To: County Council/ T&E & PHED Committees

From: Royce Hanson

Subject: **The Next Planning Mess and How to Prevent It:** Few thoughts on festering issues in the Agriculture Reserve.

I hope you will indulge me in taking advantage of the reservation in my agreement with the Council to speak on some matters as a citizen. Because I believe issues arising from the Reserve are a vivid example of the deficit in institutional and intellectual leadership I discussed in Memorandum # 2 and which, if unattended, may become the next planning crisis, I have determined at least to convey those concerns to you.

The main thrust of my comments is that it is hazardous to the protection of the Reserve to consider the issues that remain in isolation, because so doing ignores the relationship successful resolution of one issue has to others. Establishing a way of extinguishing large numbers of buildable development rights, for example, is as important a means of dealing with abuse of family member lots or sand mound subdivisions as directly regulating them. Reciprocally, dealing with family lots and sand mounds can help address the buildable lot issue. Resolving how to approach sewage disposal and water supply for large institutions that are not candidates for extension of public systems is critical to preventing fragmentation of the Reserve, and should not be resolved on a case by case basis, or with a general rule that has been tailored to a specific situation, even if that is necessary as a stop gap measure.

Some of the most vexing issues could be resolved by rigorous enforcement of the Master Plan through the subdivision and permitting processes. Others may require amendments to the Master Plan and zoning ordinance as well as the Water and Sewerage Plan. They are not intellectually or politically daunting, and they are even less so if considered in context rather than isolation. *In short, you can chose patchwork and continue frittering away one of the most important resources in the region and leave a legacy of having lost a national model of land conservation, or you can ensure its maintenance and enhancement.*

The following sections deal with the respective issues in the context of the overall objectives of the Reserve as a working landscape protected in perpetuity as a combination of local agricultural products that can change with markets and technology, a regional amenity and cultural heritage, and an irreplaceable environmental asset for the protection of land and water resources of the county and the Chesapeake Bay region. In future years it will be even more valuable as an unmatched resource in the region. It has and will continue to have a major impact on the quality of life of the county.

Private Institutional Uses

The Council's November 2005 action denying extension of public water and sewerage was an important first step in curtailing development of large-scale institutions that would transform the Reserve's essential function. Your action clearly enforces the explicit recommendation of the Master Plan, which on page 61, states: "Deny public water and sewer service to areas designated for agricultural preservation that utilize the Rural Density Transfer Zone (RDT)" (Emphasis in original).

That action did not address the question of what to do about land that could be intensively developed without public water and sewer service, provided some kind of multi-use or community system could be approved to serve it. The Master Plan also anticipated that issue and on page 62 recommended: "Deny private use of alternative individual and community systems in all areas designated for the Rural Density Transfer Zone (RDT)" (Emphasis in original). *If the county would simply enforce the recommendation of the Master Plan, further action should be unnecessary.* A multi-use system would not be approved.

Since the ability or will to enforce the Master Plan seems elusive, Mr. Knapp's proposal to limit multi-use septic systems to the capacity that would be expected for the remaining permitted residences on a parcel is a good faith effort to address the potential for overbuilding on such sites. Although crafted in response to a specific situation it has broad implications for the Reserve, and I urge the Council to consider whether it is ultimately an adequate response to the general problem of large institutions that seek to develop facilities in the Reserve.

I believe there is a better approach to this and other issues that threaten the viability of the Reserve.

The first question in dealing with any land use matter is whether it furthers the goals of the Master Plan and the purposes of the zone. The ability to prevent placing "a right thing in the wrong place, like a pig in the parlor instead of the barnyard," as Justice Sutherland said in *Euclid v. Ambler*, is at the heart of the power to plan and zone. The "right thing in the wrong place" can involve both an inappropriate use and an inappropriate scale of an otherwise unobjectionable use. The issue in the case of institutional uses is scale rather than use—or even volumes of waste. A dairy may produce a lot of waste, but it is an appropriate use in an agricultural zone, though not in an apartment district.

The overarching objective of the Reserve is to preserve agriculture and rural communities. The RDT zone is an *agricultural* zone. It is so identified in the Zoning Ordinance. It is not a residential or an institutional zone. Agriculture is the primary and preferred use. Residences and other uses that were deemed to further or support agriculture and rural life were permitted in the RDT zone. When we designed the RDT

zone in 1980, we permitted some private institutional uses, having in mind the 60 country churches and private schools that served the rural communities of the Reserve and were vital parts of community life. I can say with assurance that when we designed the zone we did not contemplate facilities serving thousands, many if not most of which would not be residents of the Reserve's rural communities. But times and institutions have changed, and we should recognize that if the goals of the plan have not changed, we must adapt our regulations to deal with assumptions that no longer hold in order to sustain those goals.

It is clear to me that **the most effective approach to addressing this problem is to amend the RDT zone to require that institutional facilities that cannot be served with individual septic systems should be subject to the special exception process.** As an interim measure, you could amend the Water and Sewerage Plan to deny multiuse systems to projects that have not been granted a special exception. There are several reasons for making this recommendation:

1. It would ensure that any large scale project is consistent with and advances the goals of the master plan to protect the critical mass of agricultural land, and that it is compatible with the neighborhood in which it is proposed. A monastery pursuing agricultural industries might fit well in the Reserve but a large residential school with no agricultural activity might not.
2. It would require analysis of the traffic and environmental impacts of the project, and evidence that adverse effects can be ameliorated.
3. It would require development in accordance with a site plan.
4. It provides well-established and fair procedures, careful analysis, and public participation in the process.
5. It is a system that can be applied to all such projects, and does not single out any category of institutions for unique treatment.

The objections voiced to this approach appear to involve the cost of going through the special exception process and concern that requiring special exceptions might violate the Free Exercise Clause of the First Amendment, since the requirement would apply to both secular and religious institutions.

As we are talking about large institutions that will need to employ architects and engineers for their project, the marginal cost of obtaining a special exception is not an onerous burden, and may serve to improve the quality of the project.

While the U.S. Court of Appeals for the 4th Circuit held in *Renzi v. Connelly School Of The Holy Child* (2000) that Montgomery County could exempt religious schools from having to obtain special exceptions in residential zones, the U.S. Supreme Court has consistently held that governments may adopt and enforce regulations that have a secular

purpose, as proposed above, even though they may incidentally affect religious institutions or practices, *Smith v. Oregon* 485 U.S. 660 (1988), and that Congress could not, consistent with the Fourteenth Amendment, enact legislation that would permit religious institutions to override such local laws *City of Bourne v. Flores* 521 U.S.507 (1997).

Whatever action the Council takes on the Knapp amendment, it should charge the Planning Board with two tasks:

- 1. Review the RDT Zone to see if there are other uses that seemed reasonable to permit in 1980, which have metamorphosed in the intervening years such that special exceptions should be required for them in their entirety or if they exceed some scale. Ideally, this would be done in connection with an overall revision and codification of the zoning ordinance, but because of the urgency and uniqueness of the RDT zone, it could be done separately.***
- 2. Determine if the Master Plan should be amended to recommend approval of multi-use/community systems only in connection with special exceptions.***

The Family Member Lot Issue

The objective of the family lot provision in the Master Plan and zoning ordinance was to permit the creation, on a smaller lot than otherwise required, of a home for a family member that expected to remain on and participate in farming the land. It was limited to those that owned land in 1980 to prevent abuse by subsequent owners that bought farmland with the intent of converting it to subdivisions. In some instances—and an increasing number of them—owners have seen this not as a means of maintaining a family farm, but as a means of subdividing the land for market sale of residences, without so much as having a family member ever take title. The ordinance allows a family lot to be created for every child or spouse of a child, regardless of number, so long as there are still enough untransferred development rights available-- one for every five acres. *The exemption for family lots is from the dimensional requirements of the zone, but as written, it permits such lots in excess of the density of 1 residence for each 25 acres so long as there are enough development rights available to provide a dwelling for each child.¹ But*

¹ See § 59-C-9.74.(b): The following lots are exempt from the area and dimensional requirements of Section 59-C-9.4, but must meet the requirements of the zone applicable to them prior to their classification in the Rural Density Transfer Zone.

(4) a lot created for use for a one-family residence by a child, or the spouse of a child, of the property owner, provided that the following conditions are met:

- i. The property owner can establish that he had legal title on or before the approval date of the sectional map amendment which initially zoned the property to the Rural Density Transfer Zone;
- ii. This provision applies to only one such lot for each child of the property owner; and
- iii. *Any lots created for use for one-family residence by children of the property owner must not exceed the number of development rights for the property. (Italics added)*

there is nothing in the ordinance to support the idea that further market subdivisions of the farm are then possible if the allowable zoning density has been achieved, much less exceeded, by the family lots. Thus, while it is possible to exceed the zoning density if a farmer has a large number of children, one cannot further fragment the property by selling another lot for each 25 acres. A currently proposed subdivision, for example, asked for 3 market lots on an 80+ acre parcel (the maximum allowed by zoning), and five family member lots, producing a 10-acre subdivision. This violates both the letter and spirit of the law

The concept of allowing a lot for a family member to be created in order to help sustain family farming remains a reasonable one, but that is not always being achieved by current practices.

- First of all, the Planning Board needs to make clear that if the total number of family residences created from a parcel equals or exceeds one per 25 acres, an owner may not further subdivide the property and be allowed to have his cake and eat it—in some cases twice. Moreover, if market subdivision occurs prior to the or simultaneously with creation of child lots, an owner may retain only the proportion of development rights represented by the fraction of the original density the owner retains.
- Second, the family member for whom the lot is being created should be required to hold the title, and the record plat should show that the lot is a family lot and an easement should be recorded showing that a development right has been extinguished.
- Third, the Board should use its powers more aggressively in reviewing subdivisions that propose family lots by requiring that the applicant demonstrate that it is, indeed a family lot, and to show how, by its location, etc., it contributes to the farming enterprise. The Board should deny lots that are blatantly designed to be placed directly on or flipped to the exurban residential market.
- Fourth, the zoning text should be revised to clarify the extent to which family lots should be permitted in excess of the zoning density. There probably needs to be a scale established that might, for example, allow one family lot in excess of base density for each 100 acres. The objective is to facilitate family farming, not housing that is essentially unrelated to the farming enterprise, even if related to the farmer.
- Fifth, abuse of the family lot provision could be substantially ameliorated by adoption of a program designed to expunge some of the retained *buildable* development rights (see discussion below).
- Sixth, as this issue is examined in relation with others, consideration should be given to sunsetting the provision, since it has now been available for 25 years.

Sand Mounds

This issue again involves the meaning of the Master Plan's statement on page 62: "**Deny private use of alternative individual and community systems in all areas designated**



for the Rural Density Transfer Zone (RDT)” (Emphasis in original). The Planning Board majority has used three arguments to allow subdivisions on sand mounds in the RDT Zone:

- The majority took the position that the Master Plan’s admonition against the use of alternate septic technologies must have contemplated a moving target, so that any new technology considered alternative in 1980 that is later redefined by DPS as conventional is OK. This view is reinforced by the 1994 Council Resolution approving Executive Regulation No. 28-93am, which declared sand mound technology to be “conventional,”² and appended a statement from the Department of Health to the effect that using sand mounds would allow development at the maximum density permitted in the RDT zone (again, notwithstanding the Master Plan’s clear position that development should not achieve full zoning capacity due to the unsuitability of much of the Reserve’s soils for traditional septic systems. While the 1994 r resolution is unfortunate, it is not an amendment of the Master Plan, as it was adopted by the Council sitting as the Board of Health and not as the District Council. It is, at most, aberrant dicta in an otherwise good Council record of rhetorical support for the Reserve.
- The majority misread a sentence in the same paragraph, which states: “Study the possible application of private alternative individual and community systems *in rural open space areas*” (*Italics added*) as support for their first argument. This reading blithely ignores the distinction made throughout the Master Plan between the RDT Zone applied in the Reserve, and rural open space areas, which were placed in the Rural Cluster Zone where it makes sense to use technologies that support clustering by allowing a better grouping of lots on poorer soils to protect *open space*—which is clearly distinguished from the *critical mass of agricultural land* in the Reserve and the RDT Zone (See Master Plan: pp. 40-41).
- The Board had previously approved 35 sand mound subdivisions in the past in the RDT Zone, apparently without questioning their consistency with the Master Plan, so they should continue to do so.³

There are legitimate uses for sand mounds—to replace failing conventional systems and to allow the building of homes for family members on legitimate family lots or accessory units for farm tenants. Their use for market subdivisions in the RDT Zone, however, is contrary to both the letter and spirit of the Master Plan and the purpose of the zone. They contribute to fragmentation of the critical mass of farmland. They are being used to subdivide farms into *de facto* clusters of McMansion estates on relatively small lots, turning the RDT zone into a somewhat less dense version of the Rural Cluster Zone and

² DPS advises that the technology is innovative/alternative, however, if the percolation tests establish infiltration rates of 60 minutes or more per inch. Constructive Comments, Montgomery County Department of Permitting Services, August 2003. p. 7.

<http://permittingservices.montgomerycountymd.gov/August%202003.pdf>

³ See p. 15, Montgomery County Planning Board Opinion. Preliminary Plan I-05029. Stoney Springs (Casey Property) 2005.

confusing the preservation of open space with the protection of a working agricultural landscape. The Board has it within its power under the subdivision regulations to prevent this erosion of the Reserve, but has been reluctant to use its authority to deny subdivisions dependent on sand mounds.

The willingness of the Board to roll over on the sand mound issue by permitting their indiscriminate use is an important factor in the extraordinary inflation in prices for residual development rights. So long as any tract of land can be fully developed, regardless of its natural carrying capacity, it will be virtually impossible to protect it for agriculture, even after all the additional TDRs have been sold. ***Basically, the use of sand mounds is condemning the Reserve to the very fate the Master Plan and the combination of zoning, TDRs, and limits on sanitary technology were designed, working in concert, to prevent.***

The Council should take the following actions:

Adopt the resolution offered by Council Members Praisner and Perez to prevent further abuses of the use of sand mounds while the issue is explored in conjunction with the other issues. There are concerns among the farming community that can and should be addressed in resolving the problem. In doing so, it is vital to keep in mind that: (1) the purpose of the Plan, zone, and sewerage regulations is to protect agriculture. (2) Residences and other uses are permitted in the Reserve to support agriculture and a working landscape—the RDT zone is not a residential zone; it is an agricultural zone. (3) The RDT zone is not a cluster zone.

- ***Rescind its implied endorsement of the attachment to the 1994 sand mounds resolution*** to signal to the Planning Board that it explicitly does not intend sand mounds to be used to circumvent the intent of the Plan. In the alternative, the Council should advise the Board that in its opinion the Master Plan for Preservation of Agriculture & Rural Open Space does not support the use of sewage technologies other than traditional septic systems in the RDT zone for purposes of residential subdivision.
- ***Put a high priority on the production of a comprehensive report on Reserve issues and specific solutions for them.*** Planning staff has done a great deal of work on these issues over the past several years, and the Board has considered many of them. ***What is needed is a comprehensive package of measures presented in actionable form to the Council.***

Extinguishing Excess Residual Development Rights

The use of Transferable Development Rights (TDRs) was one of the key components of the strategy that has created the Agricultural Reserve. The TDR program has been the national model for market-based land preservation on the urban edge. *The fundamental idea behind its success is that the market should set prices for transferable development rights, and the market should be made competitive by providing a sufficient number of*

receiving areas where the transferred density can be served. The program is voluntary; there must be a willing buyer and a willing seller who arrive at a price. While every landowner in the RDT Zone was allocated one TDR for each five acres of land (the zoning that had been applied previously to the RDT zone), many that have sold TDRs have retained one development right for each 25 acres.

There is currently a robust market for TDRs, with sales reported at over \$30,000 each, a radical increase over the \$6000 going rate of a few years ago. This price reflects some combination of the short supply of TDRs, the value of the additional units that can be built using them, and the number of builders bidding for them. Even these high values, however, are dwarfed by the value of a buildable lot in the RDT Zone, on which a large home can be constructed and sold for well over a million dollars. Ironically, the limits on development in the Reserve have made the land to which these development rights remain attached even more valuable as home sites for an elite market of potential buyers that seek a rural residence but have relatively little, if any interest in farming. Large development firms are entering the Reserve, purchasing or optioning large tracts, and seeking to subdivide them. This is in sharp contrast from past practice of individual buyers purchasing a farm and building a home. Thus, these retained development rights that are attached to the land represent for landowners the prospect of future windfalls from subdivision, which are far greater than incomes expected from farming or selling to a new farmer on retirement,. By driving the price of land far above its agricultural value, they erect a high barrier to entry by young farmers or to the acquisition of additional land to enlarge a farm. The use of sand mounds means that full density can now be extracted from every parcel and that there is no undevelopable land in the Reserve. The problem is exacerbated when *de facto* clustering is permitted by Planning Board practices.

If a working landscape is to be protected in the Reserve, it is imperative to restore the subdivision potential of the land to its natural holding capacity. It would be desirable to go beyond that to extinguish most of these residual development rights, substantially reducing the prospects for subdivision into rural estate homes with good views of each other, and of Sugarloaf in the distance.

This again suggests the need for a comprehensive rather than a piecemeal approach. It is likely to involve several measures, applied in concert:

- Limit the use of sand mounds and any other sewerage technologies that encourage efforts to develop to the limits of the zoning envelope.
- Broaden the market for TDRs by:
 - Increasing the number of receiving areas.
 - Requiring the use of TDRs for increased densities in some receiving areas and/or optional development methods.
 - Allow TDRs to be used for density increases associated with affordable housing in appropriate locations, as has been done in Suffolk County, NY.
 - Allow TDRs to be used in high-density commercial and office projects.
 - Create a new class of “Super TDRs” for those rights that remain attached to the land *and that could support subdivision at normal holding capacity*

density. This idea has merit, but the devil will be in the details. There are issues of their impact on the general market for TDRs, how they should be valued (if not by the market), and how and where they should be used. It may be possible to exchange some number of county-owed development rights for each super TDR in return for an easement limiting in perpetuity the number of remaining development rights.

- Create a Quasi-Public Agricultural Land Conservancy to seek “first refusal” agreements with landowners to acquire their land in the event they want to sell it. The conservancy would then extinguish the development rights in excess of those needed for a farmstead by selling them to builders in receiving areas, grant a perpetual easement to a land trust, and then sell the land to a buyer interested in keeping it in agricultural uses.

Some of these ideas have broad support, and have been considered by a TDR task force and the Planning Board. Others have not yet been fully explored. Some are highly controversial and hotly contested. They are evidence, however, that if there is a will to do it, there are ways to reconcile the equity interests of landowners with the public interest in sustaining a working rural landscape as an integral feature of a great metropolitan county. ***Indeed, the county has a long-standing covenant with its citizens, in which they accepted higher densities in the urban corridors so that the Reserve, as the low-density wedge of the General Plan, could be preserved. Hundreds of millions of private and public dollars have been spent in acquisition of development rights, provision of services in receiving areas, and purchases of parkland within the Reserve. That investment now needs to be protected.***

Bill 38-05

Proposed amendments

By Councilmembers Praisner and Perez

The Laws of Montgomery County ~~[[2005]] 2006~~ are amended as follows:

Sec. 1. Temporary Prohibition.

Notwithstanding any provision of County Code Chapter 27A, any other County law, or any County regulation to the contrary, the Director of the Department of Permitting Services and any other County department or office must not issue a permit for the construction or installation of any mound septic system or innovative or alternative individual sewage disposal system that would be located in the Rural Density Transfer zone.

Sec. 2. Exceptions.

This Act does not apply to the construction or installation of any septic system or other individual sewage disposal system that is necessary to:

- (a) replace a failed or malfunctioning system that serves a building built before this Act takes effect; ~~[[or]]~~
- (b) respond to a public health emergency when no other alternative means of sewage disposal is feasible;
- (c) construct any non-residential building for an exclusively agricultural use as defined in Section 59-A-2.1, such as a barn, stable, or shed; or
- (d) construct a 1-family residence allowed under Section 59-C-9.74(b)(4).

Sec. 3. Expedited Effective Date.

The Council declares that this legislation is necessary for the immediate protection of the public interest. This Act takes effect on the date on which it becomes law.

Sec. 4. Expiration.

This Act expires on ~~[[July]]~~ October 31, 2006.

Robert R. Harris
301 215 6607
robert.harris@hklaw.com

March 14, 2006

Via E-Mail and Facsimile

The Honorable Nancy Floreen
Chair
Transportation and Environment Committee
Montgomery County Council
Stella B. Werner County Office Building
100 Maryland Avenue
6th Floor
Rockville, MD 20850

Re: Sewage Disposal – Septic Systems – Temporary Prohibition (Bill 38-05)

Dear Councilmember Floreen:

We are writing to you on behalf of Winchester Homes, to supplement the testimony Mike Conley of Winchester Homes and I presented at the public hearing on this Bill on November 15, 2005. In short, we want to reiterate our opposition to any legislation that would effectively revoke the subdivision approval our client obtained last year for their property near Poolesville.

By way of background, Winchester Homes owns a 724 acre property near Poolesville previously known as the Casey property. Approximately 2 years ago, our client contracted to purchase the property and, soon afterwards, submitted a subdivision application for it using only a limited number of the development rights assigned to the property for actual development on it. Working with the Park and Planning Commission Staff and the Planning Board, Winchester ultimately received subdivision approval for 15 lots, including a 309 acre farm, 8 smaller farms up to 78 acres and 6 lots clustered on a small portion of the property. In doing so they agreed to limit development to half the permitted density, to protect a significant portion of the property as Legacy Open Space without the need for the County to acquire that land or an easement on it, to protect 300 acres of forest, and to maintain 353 of the 359 acres now available for agricultural use as agricultural land.

Consistent with State and County regulations, as well as established County practice with respect to other such properties, the County Health Department and the Planning Board approved the project with the use of sand mound septic systems. They also found that the project conforms with provisions of the Agricultural and Rural Open Space Master Plan. Based on that approval, Winchester Homes acquired the property and has been proceeding with work to

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The Honorable Nancy Floreen

March 14, 2006

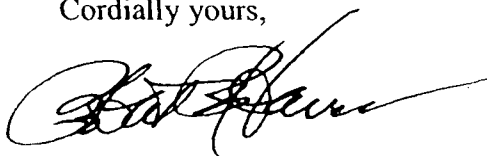
Page 2

implement the approval. Winchester now has spent more than \$7,500,000 to acquire the land based upon those approvals and for pursuit costs.

Testimony at the public hearing revealed that sand mound septic systems are not experimental or untested septic systems; they work very affectively. The Council President even acknowledged this. Some, however, argued that the County should now establish a policy prohibiting the use of these systems in the Agricultural Reserve. Significantly, the County does have an adopted policy that allows them, and they have been used for this project and others where deemed appropriate. The legislation, therefore, would effectively abandon an existing policy, at least on a temporary basis, and would take away development rights from various properties. Many farmers and landowners opposed any such change.

Irrespective of the testimony from many farmers and land owners opposing the prospective applicability of this policy, as reflected in the attached testimony our client has an even stronger basis for opposing this legislation: they followed County regulations and established policy, invested significantly in reliance on that policy and have obtained subdivision approval under it. The issue of using sand mounds at this property was debated extensively at two Planning Board hearings and the Planning Board approved the project. It would be entirely inappropriate, and inconsistent with County policy, to now change the regulations and prohibit that which already has been approved. We respectfully request that this legislation either be rejected or, if it is passed, that this project be allowed to proceed.

Cordially yours,



Robert R. Harris

Enclosure

cc: With enclosure:
Councilmember Thomas Perez
Councilmember George Leventhal
Councilmember Marilyn Praisner
Michael Faden, Esq.
Michael Conley
Sylke Knuppel

3651909_v1



Testimony of Robert R. Harris
Before the
Montgomery County Council
Sewage Disposal – Septic Systems – Temporary Prohibition

Expedited Bill 38-05
November 15, 2005

Good evening. I am Bob Harris of Holland & Knight. I am testifying tonight in opposition to the proposed moratorium on sand mound septic systems. I do not believe they should be prohibited and I certainly do not believe that a case has been made for expedited prohibition even before further studies of the issue, called for in the legislation, are undertaken.

Sand mounds are not new or experimental technology. They are classified in Montgomery County and State of Maryland regulations as conventional septic systems and they have been used throughout the State, including the County's Agricultural Reserve, for many years. In 1994, after formally reviewing their use in the Agricultural Reserve, the County expressly confirmed them as appropriate sewage disposal systems. Five years later, in 1999, Chairman Hussmann supported them when he wrote to the Council concerning a pending task force on septic regulations indicating "the Planning Board supports the effort to achieve greater flexibility in septic regulations" for properties in the Agricultural Reserve with percolation problems. The task force then studied the issue and affirmed the use of sand mound systems in the Agricultural Reserve. In March, 2000, the Planning Director commented on the task force report indicating that "the Planning Board fully supports the right of a property owner to develop at the density allowed within a zone" and did not favor septic regulations that would "reduce the number the

lots." Later that year, Park and Planning reiterated this position indicating that using mound systems for septic disposal in the Agricultural Reserve should be a first choice before testing and/or approval of other systems that might require placement of septic fields in the most fertile farm fields as opposed to other areas on a property. In advocating for mound systems, they commented, "These options would be extremely helpful in allowing for more creatively designed subdivisions which could be far more protective of both rural open spaces and our most fertile farm lands."

In short, the County has repeatedly affirmed the propriety of these systems. These regulations have not resulted in any major development in the Agricultural Reserve. County data show that over the entire 90,000 acre Agricultural Reserve area, the County averaged approval for only 20 total lots per year over the past six years, and only a fraction of those lots are served by sand mound septic systems. This does not appear to me to support emergency legislation that would impose an immediate moratorium on such systems prior to any study, particularly given that prior studies supported, not opposed, the use of sand mound systems. The policy has been to balance agricultural preservation with the rights of property owners. This should continue.

Testimony of Mike Conley
Before the
Montgomery County Council
Sewage Disposal – Septic Systems – Temporary Prohibition

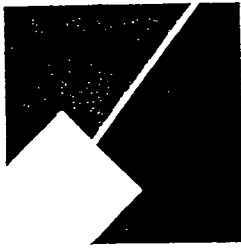
Expedited Bill 38-05
November 15, 2005

Good Evening. I am Mike Conley, Vice President of Development for Winchester Homes. In January of 2003 Winchester contracted with Mrs. Casey to purchase the 724 acre property near Poolesville now known as the Stoney Springs Subdivision. Following submittal of the subdivision request and three years of septic testing monitored by the County, a 15 lot Preliminary Plan was approved on March 17th of this year. Our plan underwent extensive scrutiny at Park and Planning which included input from many special interests. The Planning Board examined the sand mound issue carefully and agreed that this septic system would be appropriate for the property. Significantly, the Planning Board approved the development plan because it struck a balance between (1) agricultural preservation, (2) environmental protection, (3) forest conservation, and (4) property rights under the RDT zoning. The Planning Board did not allow the property to be developed at its full density of 1 unit per 25 acres and they required the development to protect most of the farmland and nearly all of the forest area. Most significantly, the Planning Board concluded that a low density development on a small portion of the property, utilizing sand mound septic systems, was not contrary to any provisions of the 1980 Agricultural Master Plan. The final result is 1 farm lot of 309 acres and 8 smaller farms of up to 78 acres each. Overall 98 % of the property now available for agricultural use will remain in agriculture.

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The plan also preserves 300 acres of forest which the County wanted under its Legacy Open Space plan but could not afford to buy. When adding in areas to be afforested, the forest and agricultural preservation on the property totals 90% of the site. Additionally, Winchester will sever all remaining TDRs to preclude further subdivision. By creating multiple farm parcels and clustering a limited number of units on a small portion of the property through the use of sand mounds, we have achieved the very vision that Planning Board Chairman Hussmann and staff advocated in 2000.

In reliance on the Board's approval, Winchester has already spent \$1,357,000 in pursuit of approvals. We have submitted wetland permits to the state and sediment control plans to DPS. Record plats and septic system permits have been submitted to the County for processing. It is a long standing County practice to grandfather projects that have already gone through the approval the process and we ask you do to so with respect to this property. **What would be the unintended consequence if this project is allowed to move forward? The Planning Board in its deliberations has already determined that this project strikes "the proper balance" and that the plan is consistent with the intent of the 1980 Agricultural Master Plan.** We're discussing one lot per 48 acres wherein 98% of the agricultural land will remain in agricultural use! We have proceeded in good faith. We have followed the requests of both the Planning Board and staff in terms of this project and we should have the right to rely on their approvals. It's a question of fairness and our right to due process. Thank you.



Date Mailed: DEC 20 2005

Action: Approved Staff
Recommendation.

Date of Hearing: March 17, 2005.

Motion of Commissioner Robinson,
Seconded by Commissioner Bryant,
with a vote of 3-2.Commissioners Robinson, Bryant and
Perdue voting in favor. Chairman
Berlage and Commissioner Wellington
voting against.

MONTGOMERY COUNTY PLANNING BOARD

OPINION

Preliminary Plan 1-05029

NAME OF PLAN: Stoney Springs (Casey Property)

The date of this written opinion is DEC 20 2005, 2005 (which is the date that this opinion is mailed to all parties of record). Any party authorized by law to take an administrative appeal must initiate such an appeal within thirty days of the date of this written opinion, consistent with the procedural rules for the judicial review of administrative agency decisions in Circuit Court (Rule 7-203, Maryland Rules of Procedure).

This Preliminary Plan will remain valid for 36 months from its Initiation Date (as defined in Montgomery County Code Section 50-35(h), as amended). Prior to the expiration of this validity period, a final record plat for all property delineated on the approved preliminary plan must be recorded among the Montgomery County Land Records or a request for an extension must be filed.

I. INTRODUCTION

On August 14, 2004, Winchester Homes (the "Applicant") submitted an application for the approval of a preliminary plan of subdivision of property in the Rural Density Transfer ("RDT") Zone. The application proposed to create 13 lots as well as 8 outlots and unrecorded areas for future lots on approximately 704 acres of land located

4. Stormwater Management

The record includes uncontested evidence that the stormwater management concept and other related matters for the Property is acceptable as conceptually approved by the DPS.

5. Forest Conservation

The record includes uncontested evidence that the Application complies with the requirements of the Forest Conservation Law.

6. Relation to Master Plans

The Agricultural Master Plan recommends the RDT Zone for the Property. The Board discussed at length whether the proposed development, including the use of sand mounds, is in substantial conformance with the Agricultural Master Plan.²⁰

The Board majority pointed out that that the Agricultural Master Plan does not prohibit the use of sand mound septic systems in the Agricultural Reserve. While the Plan (at page 62) recommends sewerage guidelines including the recommended denial of private "alternative individual and community systems" in the RDT Zone, the Plan also recommends in the same paragraph that a study of the possible application of private alternative individual and community systems in rural open space areas be undertaken.

The Board notes that the Master Plan was adopted in 1980. The Board further notes that while in 1980, sand mounds were considered "alternative" systems, both

²⁰ The Chairman and one other Boardmember found that the proposed development was not in substantial compliance with the Agricultural Master Plan, because it did not comply with the Plan's "perc policy." They noted that, while the RDT zone specifies a density of 1 unit per 25 acres, that the Agricultural Master Plan provided for a lower density - "the population holding capacity" - and that that density was determined by the perc policy that only allowed use of septic systems and prohibited the use of "alternative systems," including sand mounds. In that regard, they concluded that the County Council in its action in 1994 on Executive Regulation 28-93AM, On-Site Water and On-Site Sewage Disposal Systems did not intend to override the Master Plan perc policy; the Council merely sought to permit sand mound septic systems to replace failing septic systems, as a health measure. Since sand mounds were not permitted in the Agricultural Master Plan, and the Plan has not been amended, sand mounds could not be used in the instant case to thwart the Master Plan density limits.

State and County laws, regulations, and/or policies (all of which are part of the Record) currently do not define sand mound septic systems as "alternative" or "experimental systems." DPS has determined that sand mound septic systems are safe and appropriate for use on the Property. In fact, at the December 9, 2004 hearing, Eugene Von Gunten from the Well and Septic office at DPS testified that since 1990 the County has approved approximately 200 to 250 lots that use sand mound septic systems, including properties in the Agricultural Reserve. Mr. Von Gunten further testified that at least five subdivisions have been approved for development exclusively with sand mound septic systems.

The Record is also clear that the use of sand mound septic systems has been approved for other developments in the RDT Zone by the Planning Board and other reviewing agencies. The Board notes that its discussion on the Prior Plan at the December 9, 2004 public hearing centered on the size of the proposed lots, the configuration of those lots, and whether those proposed lots satisfied the Master Plan objective of preserving areas of agricultural land. The Record contains uncontroverted evidence that in the past six years alone, 35 lots in the RDT Zone were approved with sand mound septic systems. After consideration of all the evidence on this issue, the Board finds that the use of sand mound septic systems is permitted in the RDT Zone. The Board majority concluded that the use of sand mound septic systems on the Property substantially complies with the Agricultural Master Plan.

The majority based this decision on a number of factors. First, the Master Plan does not absolutely prohibit the use of sand mounds. While the Master Plan says "deny private use of individual and community use systems,"²¹ it Master Plan does not state that this standard is limited to those systems as they were defined in 1980. Second, "sand mounds" are explicitly defined under current law (State Regulation), and are not defined as an alternative system. Thirdly, the Board has in the past approved sand mounds to support residential development in the RDT zone, indicating an agency practice of finding these systems in conformance with the Master Plan. Finally, the majority concluded that while the Council Resolution, which states "Explore ways in which particular site restrictions to allow development by zoning to be constructed," does not allow *carte blanche* use of alternative technologies to achieve the maximum density allowed by the Zone (in this case 1 unit per 25-acres), it does reflect a policy goal to allow alternative septic technologies to be used to support zoned densities *if* proposed additional density can be provided in accordance with all other regulatory restrictions and findings (e.g., RDT zone requirements and Master Plan goals). The majority concluded that the Revised Plan so meets those goals.

In reaching this conclusion the Board noted that the Applicant substantially revised the prior preliminary plan and that the current plan preserves significant agricultural and forested areas. As calculated by the Staff, the proposed development

²¹ Agricultural Master Plan p. 62.

will result in the preservation of 353 acres of the 395 acres of farm fields and the retention of 662 of the total 704 acres (including 300 acres of forest) as agriculture or agricultural open space. The Board believes that the clustering of smaller lots in two areas on the Property is a strength of the preliminary plan because it allows more contiguous area of agricultural land as recommended in the Agricultural Master Plan.

Additionally, the uncontested evidence of record reflects that the Revised Plan conforms to the Legacy Open Space (LOS) program recommendations that the 300-acre forested portion of the site be protected through the Farmland and Rural Open Space target area. The Board majority concluded that it agreed with its LOS staff recommendations that the density be limited to a maximum of 15 lots with all remaining development rights to be separated from the property, resulting in an overall density of one unit per 47 acres, consistent with the *Legacy Open Space Functional Master Plan* recommendation that density be kept below one unit per 50 acres to keep as much viable farmland and rural open space as possible. The Board further concurs with its LOS staff conclusion that the size distribution and density of lots within the site substantially meets the reduced density goal for Legacy Open Space and does provide several lots that have the potential for continuing agriculture use.

The Board further determined that the preliminary plan is in compliance with the Rustic Roads Master Plan. As explained in the Staff Report, Staff conditioned its recommendation for the approval of this preliminary plan upon the Applicant submitting a house location and landscaping plan to Legacy Open Space Staff for review and approval prior to the issuance of building permits. The Board finds that this condition adequately ensures that the houses will be situated on the Property in a manner that satisfies the Rustic Roads Master Plan.

The Board has considered the Technical Staff's position on substantial compliance with the Master Plan, the Applicant's materials, exhibits and testimony on substantial compliance with the Master Plans, and the opponents' materials, exhibits and testimony on the question of substantial compliance with the Master Plan. The Board is persuaded for the reasons set forth herein that the proposed subdivision will be in substantial compliance with the Agricultural Master Plan and the Rustic Roads Master Plan.

ii. General Items

The subdivision Application was referred to outside agencies for comment and review, including, the Department of Public Works and Transportation, the Department of Permitting Services, and the various public utilities. None of the agencies opposed approval of the Application.



AGRICULTURAL ADVISORY COMMITTEE

March 21, 2006

The Honorable George L. Leventhal, President
Montgomery County Council
100 Maryland Avenue
Rockville, Maryland 20850

Re: Expedited Bill 38-05 Sewage Disposal
Systems-Temporary Prohibition

Dear Council President Leventhal:

The Agricultural Advisory Committee (AAC) would like to thank you for your strong support of and commitment to the County's Agricultural Reserve as you advocated during the March 16, 2006 Transportation and Environment Committee Work Session.

We are also appreciative for the additional time that was granted so that the agricultural community could review specific amendments to Expedited Bill 38-05. This Bill represents a very serious issue that we do not take lightly. As you know, the agricultural community was united as part of the November 15, 2005 public hearing wherein we provided strong testimony in opposition to this Bill. We found that it was most troubling that Council Staff did not include all the public hearing testimony as part of the March 16, 2006 T&E Committee packet. The testimony that was presented to the County Council is extremely important in understanding and balancing the diversity of views and perspectives considering that 17 people spoke in opposition to the Bill as compared to only 11 people speaking in support of the Bill. We have provided for the record and specially referenced as part of this letter, the testimony from agricultural groups that was presented as part of the November 15, 2005 public hearing.

The AAC has reviewed the proposed amendments and we cannot support this Bill as it represents a policy that diminishes our property rights and equity in the land. You said it best when you asked Councilmember Tom Perez-What happens at the end of the temporary prohibition? Will sand mounds continue? While Councilmember Perez responded yes to your questions, it is our firm belief that Bill 38-05 will become the gateway to restrict use of sand mounds in the future, and it remains unclear as to the intentions of the Bill sponsors regarding future policies governing sand mounds in Montgomery County. We are in total agreement with the Agricultural Preservation Advisory Board (APAB) as stated in their letter dated March 15, 2006 to Nancy Floreen, Chair of the T&E Committee which states:

After much deliberation among Board members, the APAB believes Council Bill 38-05 is an infringement on vested property rights and represents a mechanism to employ regulatory changes as a means to conduct "de-facto zoning" without any consideration to the reduction of equity and the financial hardship this bill will inflict on rural landowners.

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Department of Economic Development • Agricultural Services Division

18410 Muncaster Road • Derwood, Maryland 20855 • 301/590-2823, FAX 301/590-2839

The Honorable George L. Leventhal
March 21, 2006
Page 2

The proponents of the Bill 38-05 state that sand mounds are in conflict with the wording as outlined on page 62 of the 1980 Functional Master Plan for the Preservation of Agriculture and Rural Open Space which states the following:

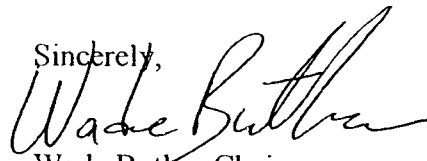
Deny private use of alternative individual and community systems in all areas designated for the Rural Density Transfer Zone (RDT).

The AAC believes it is important to point out as to what the Master Plan also states on page 35 as part of the Program Assumptions 5 for developing the PRESERVATION FRAMEWORK.

It is unrealistic to assume all farmland and rural open space can or should be preserved in the Agricultural Preservation Study Area. The plan recognizes the need for commercial and residential uses to serve the agricultural industry and the rural community at large. The Plan also recognizes that some residential development will occur even in productive areas.

The AAC believes it is the duty of government and our elected officials to consider and look at all sides of our public policies. The agricultural community is concerned that you are only hearing one side of this very serious and important issue and it is for this reason that many of us took the time out of our busy day to leave the farm and be with you as part of the March 16, 2006 T&E Committee. We sincerely hope that we will not need to do this again as part of the T&E Committee work session that is scheduled on March 30, 2006, but we are prepared to.

The AAC respectfully requests that the County Council does not approve this Bill or the amendments as the long term application of its intent will negatively impact the equity in land for both farmers and rural landowners.

Sincerely,

Wade Butler, Chairman

Attachment: APAB: Position dated March 15, 2006
Testimony from agricultural organizations November 15, 2005 Public Hearing

e:leventhal (aac06 memory stick)

M-NCPPC



MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION

8787 Georgia Avenue
Silver Spring, Maryland 20910-3760
301-495-4500, www.mncppc.org

March 21, 2006

MEMORANDUM:

TO: Montgomery County Planning Board

FROM: Faroll Hamer, Acting Director *JH*

John A. Carter, Chief (301.495.4575) *JAC*
Community-Based Planning Division

SUBJECT: Agricultural Initiatives: Regulations for Sand Mound Use, Private Institutional Uses/Residential Densities, Agricultural Issues Task Force, and Other Development Policies

RECOMMENDATIONS

The County Council requested additional comments and recommendations on the following items prior to a meeting of the Transportation and Environment (T&E) Committee on March 30, 2006:

1. **Use of Sand Mound Septic Systems in the RDT Zone** – Support a temporary moratorium as set forth in Bill 38-05 on the permitting of sand mound systems in the Rural Density Transfer (RDT Zone). Bill 38-05 should be strengthened by eliminating the exemption for child lots and eliminating the exemption for five (or fewer) lot subdivisions. At the very least, the definition of “one location” should be clarified.
2. **Calculation of Residential Density with Special Exceptions and Private Institutional Facilities** – Support Zoning Text Amendment 05-23 that will exclude land used for Special Exceptions and Private Institutional Facilities from the calculation of residential density for any parcel in the RDT Zone.
3. **Agricultural Issues Task Force** – Continue to support the establishment of a Task Force with a wide range of representatives from the agricultural community, residents of Montgomery County, County Government, and the M-NCPPC. The Task Force should examine the need for minor amendments to the Master Plan for the Preservation of Agricultural and Rural Open Space, child lots, TDRs and commercial zones, and other issues. The Task Force should incorporate the goals of the General Plan, and any new regulations should be in conformance with the General Plan.
4. **Other Development Policies Including the Use of Child Lots and the Transfer of Super TDRs** – The staff will return to the Planning Board in the near future with recommendations concerning the use of child lots and the transfer of Super TDRs. The Agricultural Task Force should also consider these issues. A temporary moratorium on the use of child lots is recommended while the issue is being considered.

5. **Moratorium** – The staff recommends that the Planning Board consider a moratorium on building permits for new construction of all non-agricultural uses in the Agricultural Reserve. Alternatively, the Planning Board may wish to recommend a moratorium on all subdivision activity.

DISCUSSION

Twenty-five years ago the Master Plan for the Preservation of Agricultural and Rural Open Space was approved and adopted. County and state programs continue to be created to implement this master plan. The M-NCPPC maintains a strong commitment to implementing this master plan. Recent examples of completed projects that implement this master plan include the following:

- Completion of a Status Report of the Transferable Development Rights Program and presentation to the Planning, Housing and Economic Development Committee in July 2005 concerning the remaining sending and receiving areas.
- Designation of additional receiving areas for the transfer of development rights in the recently approved master plans for Olney, Shady Grove and Woodmont Triangle areas, and the pending Damascus Master Plan.
- Approval and Adoption of the Olney Master Plan and completion of the Planning Board Draft of the Damascus Master Plan that preserves significant portions of the Agricultural Reserve.

The County Council recently requested a response from the Planning Board concerning the following items to improve the implementation of the Master Plan for the Preservation of Agricultural and Rural Open Space:

- Use of Sand Mound Septic Systems in the RDT Zone (Bill 38-05)
- Calculation of Residential Density with Special Exceptions and Private Institutional Facilities (Zoning Text Amendment 05-23)
- Agricultural Issues Task Force
- Use of Child Lots and Transfer of Super TDRs

ANALYSIS

Use of Sand Mound Septic Systems in the RDT Zone

The Planning Board and the County Council have been actively considering the issue of sand mound septic systems because their use in the RDT Zone has been increasing, and there is a need to consider the long-range consequences and implications of this technology. The Planning Board has already expressed support for a temporary moratorium proposed on the permitting of sand mound systems in the RDT Zone, and the formation of a working group to evaluate these systems. The staff recommends that the following elements be a part of any evaluation of the use of sand mound systems:

- Bill 38-05 should be modified and strengthened. The way it is currently written, all child lots (existing and future) would be exempt from the moratorium, as would all lots in a development that does not exceed five dwelling units in "one location." This last exemption is particularly troublesome. It references the MPDU legislation (Chapter 25A) for the definition of "at one location." The definition of "at one location" in Chapter 25A is "The property lines are contiguous or nearly contiguous at any point." Because the definition is ambiguous, and because so many clusters of five or fewer lots are approved in the Agricultural Reserve, the vast majority of existing and proposed development would be exempt from the moratorium.
- The Planning Board previously encouraged an evaluation of the long-term viability of using artificial tools such as septic limitations to control land uses that are otherwise allowed in a zone. The Planning Board stated that while this is a common practice, it leads to confusion among property owners, unrealistic expectations regarding development potential, and represents a legal concern in limiting development. There are better land-use tools for the purpose of controlling growth.

Calculation of Residential Density with Special Exceptions and Private Institutional Facilities

The staff recommends that the Planning Board continue to support Zoning Text Amendment 05-23 that will exclude land used for Special Exceptions and Private Institutional Facilities from the calculation of residential density in the RDT Zone. The existing Zoning Ordinance is not clear in describing the method to calculate residential density. The potential exists for a parcel in the RDT Zone to include a Special Exception and residential density. This Zoning Text Amendment would exclude the land area of the Special Exception from the land area available for the calculation of density. This Zoning Text Amendment is especially important to eliminate the potential for large Special Exceptions and Private Institutional Facilities to double count residential density on parcels in the RDT Zone.

Agricultural Issues Task Force

The County Council has indicated their intent to create a Task Force to examine the multiplicity of issues before them in a comprehensive way. The Planning Board may wish to consider, as part of its priority-setting discussions, supporting this effort. It should be noted that there is no work program item currently in the FY07 budget that would support the necessary staff effort.

The Task Force members would represent the agricultural community, landowners, developers, open space advocates, environmentalists, preservationists and Heritage Montgomery. The Task Force would be staffed by a Planning Department team, with a division chief and planners as needed.

The mission of the Task Force should be to reaffirm the overarching rationale for the creation and maintenance of the Agricultural Reserve and bring agricultural reserve policies into conformance with the 1993 General Plan Refinement, either through an amendment to the 1985 Master Plan for the Preservation of Agriculture and Rural Open Space or through a comprehensive series of individual policy decisions, regulations and text amendments.

The topics for Task Force review would include: current activities, such as residential subdivision and child lot activity; total capacity or build-out of the Reserve; construction of PIFs and other non-residential and non-agricultural uses; reforms to the TDR program, including the effectiveness of a BLT or Super TDR proposal; sand mounds; profitability of farming; advisability of encouraging ag-tourism; need for ag education; and the role of the Agricultural History Farm Park. The Task Force would also review other growth management techniques, such as stronger environmental regulations, larger impact fees; and more stringent traffic and public safety standards; and other policies based on an expectation that private development will fund a larger share of public infrastructure, facilities and amenities so as to direct growth away from the Agricultural Reserve and towards the Urban Ring and I-270 Corridor.

Schedule for Task Force: Once the County Council identifies members of the Task Force, a Planning Board hearing could be held on the issues and framework at the end of April. The staff could complete a draft report by early June, and check in with the Planning Board prior to completion of the report. A public hearing on the draft report could be held in mid-July, and worksessions could be held in July and September, with a final report transmitted to the County Council and County Executive at the end of September.

Other Development Policies Including the Use of Child Lots and the Transfer of Super TDRs

- **Child Lot Provisions in the RDT Zone** - In December 2005, the Planning Board deferred action on a potential Zoning Text Amendment. This amendment was intended to address concerns with the child lot provisions in the RDT Zone, request additional elements to consider, and allow additional time for community input on the proposals. The staff is currently working on an updated report to the Planning Board to consider elements for this Zoning Text Amendment. This report will include substantial additional research on this issue. The staff recommends that a temporary moratorium on child lot subdivisions in the RDT Zone also be considered. The child lot provisions should be considered by the Agricultural Issues Task Force.
- **Creation of a Transfer of Super TDRs** - As a means to reduce development potential in the RDT Zone, the staff recommends that the Planning Board continue to support the Zoning Text Amendment to establish Super TDRs. These Super TDRs would be applicable only to the remaining "buildable" TDR after all of the other "transferable" TDRs have been established and removed from a property. The Super TDRs would be based on their value as a building lot excluding the underlying value of the property for other allowed uses.

The Planning Board has already supported the evaluation of the "Buildable Lot Transfer" (BLT) program being proposed by the Agricultural Services Division which has the potential to "jump start" the Super TDRs concept by authorizing the county to purchase Super TDRs or BLTs using funds from the county's Agricultural Easement Program and holding them until appropriate receiving areas have been determined and located. The Planning Board has stated that these two concepts could work well together as this new element of the Transferable Development Rights Program is being established. Since November, the "BLT" program has moved forward and it is nearing implementation. This issue should also be considered by the Agricultural Issues Task Force.

CONCLUSION

The staff and the Planning Board continue to address issues concerning the implementation of the Master Plan for Agricultural and Rural Open Space. These issues represent a significant focus of the Rural Team in the Community-Based Planning Division.

JC:JD:ha: j:\2006 staff reports\team 7\Agricultural Initiatives - Final

Attachment:

1. Bill 38-05
2. Chapter 25A
3. Zoning Text Amendment 05-23



OFFICE OF THE COUNTY ATTORNEY

Douglas M. Duncan
County Executive

Charles W. Thompson, Jr.
County Attorney

MEMORANDUM

PRIVILEGED AND CONFIDENTIAL

TO: Nancy Floreen, Chair
Transportation and Environment Committee

VIA: Marc P. Hansen *MPH*
Deputy County Attorney

FROM: Edward B. Lattner *EBL*
Associate County Attorney

DATE: March 27, 2006

RE: **Expedited Bill 38-05**
State Preemption of Proposed Sand Mound Moratorium

A county law is “preempted by conflict” if it prohibits that which the state permits. State law permits the use of sand mounds as a type of on-site sewage disposal system, but Bill 38-05 would impose a temporary moratorium on their use, with some exceptions. I believe that Bill 38-05 is preempted by conflict because it would prohibit something permitted by state law—the use of sand mounds.

Background

Sand mounds are a type of on-site sewage disposal system permitted under state law. The State amended its sewage regulations in 1986 to include sand mounds systems as a type of “conventional on-site sewage disposal system,” along with traditional trench systems. COMAR 24.04.02.01(B)(11).¹ The 1986 amendment also added new design and construction minimum standards for sand mounds. COMAR 26.04.02.05(Q).² According to the Department of

¹ The amendment was initially promulgated as an emergency measure effective May 6, 1986, 13:11 Md. R. 1267-1270, but was later made permanent, effective November 3, 1986. 13:22 Md. R. 2398-2399.

² Where site conditions would normally preclude use of a sand mound as a conventional sewage disposal system, a land owner might still be able to use a sand mound as an “innovative or alternative” sewage disposal system under the state’s “Innovative and Alternative Septic System Grant Program.” Md. Code Ann., Envir. §§ 9-1401 to 9-1406.

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Permitting Services, the County approved sand mounds for use on a few established properties in the late 1980's. In 1994, with Executive Regulation 28-93AM, the County formally adopted sand mound requirements.

A person cannot construct or alter an on-site sewage disposal system without first receiving a permit from an "Approving Authority." COMAR 26.04.02.02(M).³ An agreement between the state and the county designates the Department of Permitting Services Director as the "Approving Authority" in Montgomery County and delegates to the county implementation of state regulations, including COMAR 26.04.02 ("Sewage Disposal and Certain Water Systems for Homes and Other Establishments in the Counties of Maryland Where a Public Sewage Systems is Not Available"). The Approving Authority must issue a permit for an on-site sewage disposal system "if it determines that the site and proposed design can safely dispose of sewage and conform with applicable laws and regulations." COMAR 26.04.02.02(L).⁴

The state regulations give the Approving Authority some latitude to impose additional restrictions for on-site sewage disposal systems generally. For example, COMAR 26.04.02.03(D) provides that "an on-site sewage disposal system may not serve more than one building unless specifically authorized by the Approving Authority." COMAR 26.04.02.05(F) states that "septic tanks shall be made of materials and constructed in a manner acceptable to the Approving Authority." And COMAR 26.04.02.05(N) provides that "greater absorption area than provided for in this regulation may be required by the Approving Authority based on local conditions and experience."

But, with regard to sand mound systems, the state regulations expressly allow the Approving Authority to increase only the minimum depth for ground water or permeable material/fractured bedrock. COMAR 26.04.02.05(Q)(2).⁵ The state regulations do not allow the Approving Authority to vary any of the other sand mound minimum standards.

The delegation agreement between the state and the county also contemplates some

³ In addition, a person cannot construct or alter any residence or commercial establishment served or to be served by an on-site sewage disposal system, and a county may not issue a building permit for the desired new construction or alteration, until the Approving Authority has issued an on-site sewage disposal permit or certified that the existing on-site sewage disposal system is adequate. COMAR 26.04.02.02(D).

⁴ Elsewhere the state regulations appear to give the Approving Authority a bit more discretion. *See, e.g.*, COMAR 26.04.02.04(E) ("The Approving Authority may not permit any on-site disposal systems to be installed when, in his opinion, it may pollute well water supplies, water supply reservoirs, shellfish growing waters, bathing beaches, lakes and tidewater areas") and COMAR 26.04.02.04(H) ("If, in the opinion of the Approving Authority, a safe and adequate water supply is not available to the lot, an on-site sewage disposal permit shall be denied").

⁵ The state authorized the Approving Authority to amend this one aspect of sand mound design criteria in 1992. 19:8 Md. R. 806.

measure of local regulation. Section II(A) of the agreement states:

II. Local Implementation Strategies

A. Relationship of State Law to Local Ordinances.

Where State or local permits are denied based on requirements of local ordinances or regulations, denial letters should accurately reflect that the denial is based upon failure to meet specific local criteria. The [state] and the Attorney General, in hearing cases on appeal, cannot support local denials involving State regulations, which go beyond the intent of State law, and regulation. Such cases would have to be handled at the local level. In areas where State law preempts local control (*i.e.*, well construction), the Montgomery County Department of Permitting Services may not enforce more stringent requirements.

Recognizing this dichotomy of local and state regulation, § XVI of the county's regulation provides that a person aggrieved by a final decision of the Approving Authority with respect to county requirements may appeal to the Board of Appeals, while a person aggrieved by a final decision of the Approving Authority with respect to state requirements may appeal to the State Department of Environment.

Analysis

State law may preempt local law in one of three ways: (1) preemption by conflict;⁶ (2) express preemption; or (3) implied preemption.⁷ A local law is preempted by conflict when it either prohibits an act that under state law is permitted, or it permits an act that under state law is prohibited. "We have referred to this type of conflict preemption as 'prohibit-permit' conflict." *Worton Creek Marina, LLC v. Claggett*, 381 Md. 499, 513, 850 A.2d 1169, 1177 (2004). But not all conflicts fit squarely within the "prohibit-permit" category. A local law may conflict with a state public general law in other respects and will, therefore, be preempted.⁸

⁶ Md. Const. art. XI-A, § 3 provides that a local government law which conflicts with a public general law enacted by the General Assembly is preempted and thus is invalid.

⁷ Because of my conclusion that Bill 38-05 is invalid because it conflicts with state law, I have not examined whether state law has impliedly preempted the field of sewage disposal generally, or the use of sand mounds as an on-site sewage disposal system. *See, e.g., Talbot County v. Skipper*, 329 Md. 481, 620 A.2d 880 (1993) where the court concluded that state law impliedly preempted a county law requiring a land owner to record certain information in the county land records before applying sewage sludge to his land in accordance with a state permit. The court found that the comprehensiveness of the state law manifested an intent to generally preempt the field of regulating sewage sludge utilization. The fact that state law expressly authorized local governments to act in certain circumstances, bolstered the court's conclusion that "where the state statute had not authorized local government involvement, the Legislature likely contemplated that the regulation would be exclusively at the state level." *Id.* at 492, 620 A.2d at 885.

⁸ *See, e.g., Montgomery County v. Board of Elections*, 311 Md. 512, 536 A.2d 641 (1988) (state law and

Maryland courts have stricken local laws when they conflicted with state law, either by permitting that which the state prohibited, *Levering v. Williams*, 134 Md. 48, 106 A. 176 (1919) (the public general law prohibited all work on Sunday, while the local ordinance allowed professional athletes to play sports on that day; the court invalidated the local law because it permitted conduct that the public general law prohibited), or by prohibiting that which the state law permitted, *Heubeck v. City of Baltimore*, 205 Md. 203, 107 A.2d 99 (1954) (a Baltimore City law prohibited landlords from evicting tenants after their leases expired, under certain circumstances, but a public general law provided for the eviction of those tenants; the court invalidated the local law because it prohibited conduct that the public general law permitted). More recently, in *County Council v. Investors Funding*, 270 Md. 403, 312 A.2d 225 (1973), the Maryland Court of Appeals struck down a portion of Montgomery County's landlord tenant law that prohibited a landlord from seeking to enforce the landlord's right of repossession if the action was taken in retaliation for the tenant filing a complaint with the county's landlord tenant commission. The court concluded that this provision of the county's landlord tenant law conflicted with the state law, which allowed a landlord to seek repossession without exception. In that case, the court relied on a previous decision which held that state law allows a landlord to seek repossession without exception.

The "prohibit-permit" conflict in this case most closely resembles the situation presented in *Forest Heights v. Tillie Frank*, 291 Md. 331, 435 A.2d 425 (1981). In that case, the Maryland Court of Appeals struck down an ordinance of the Town of Forest Heights because it conflicted with a statute of Prince George's County, a home-rule, charter county. Prince George's County issued licenses to fortune tellers to carry on their business at specific locations within the County, including locations within incorporated municipalities. But Forest Heights, an incorporated municipality located in Prince George's County, prohibited fortune telling within its municipal limits. Forest Heights argued that its law was merely supplemental to the county law, relying upon a prior court decision upholding a Baltimore City law establishing a certain minimum wage for tavern employees in the face of a state law that exempted those employees from the state's minimum wage.⁹ The court disagreed, writing "there is simply no way that the municipal ordinances prohibiting the practice of fortune telling can be considered 'supplemental' to the County's authorization to engage in the fortune telling business. *Id.* at 338-39, 435 A.2d 429-

local law provided two different and irreconcilable methods for appointing the same public officials); *East v. Gilchrist*, 296 Md. 368, 463 A.2d 285 (1983) (holding that a county charter amendment that prohibited the expenditure of county money for the operation of a landfill in a residential area was in conflict with a state general law that required counties to raise the necessary funds to operate a landfill once a site within the locality has been chosen by the state); and *Montgomery County Bd. of Realtors v. Montgomery County*, 287 Md. 101, 411 A.2d 97 (1980) (local and state law provided conflicting methods for assessing and taxing property).

⁹ *Baltimore v. Sitnick & Firey*, 254 Md. 303, 255 A.2d 376 (1969).

Nancy Floreen
March 27, 2006
Page 5

430.¹⁰

In this case, as in *Tillie Frank*, the local law would seek to prohibit that which is permitted by the state—the use of sand mounds as an on-site sewage disposal system. The prohibition may be temporary, and it may even allow some exceptions, but it will still conflict with state law. The sand mound construction and design criteria are expressed as minimum standards,¹¹ and in some instances a local Approving Authority may increase those minimum standards, but a local Approving Authority cannot entirely foreclose the sand mound option.

Conclusion

The moratorium on sand mounds envisioned by Bill 38-05 is invalid because it conflicts with state law, which expressly permits the use of sand mounds as an on-site sewage disposal system.

ebl

cc: Mike Faden, Senior Legislative Counsel
Mac Spicer, Associate County Attorney
Jay Beatty, Manager, Well and Septic Section, Department of Permitting Services
Jeremy Criss, Chief, Agricultural Services Division, Department Economic Development

06-604

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¹⁰ The General Assembly responded to *Tillie Frank* by enacting Md. An. Code art. 23A, § 2B, providing that county legislation does not apply to a municipality except under certain circumstances.

¹¹ See, e.g., COMAR 26.03.01.05(C).

Faden, Michael

From: Lattner, Edward
Sent: Monday, March 27, 2006 2:20 PM
To: Faden, Michael
Cc: Hansen, Marc P.; Spicer, Malcolm; Boucher, Kathleen; Beatty, Jay
Subject: RE: Bill 38-05: Sand Mounds

Mike,

- No, my memo does not go that far. I see the County's ability to limit the use of a state-approved sewage disposal system as more of an implied preemption issue than a conflict issue (and state regulation of water/sewer may well be different that its regulation of on-site disposal systems like sand mounds). I didn't reach the implied preemption issue (see n.7) because I concluded that the proposed sand mound moratorium is an invalid conflict. An implied preemption analysis is more complicated (*Talbot, Allied Vending*).
- COMAR gives the Approving Authority the ability to deny a sand mound permit where it is unsafe. See n.4 in my opinion, citing COMAR 26.04.02.04(E) ("The Approving Authority may not permit any on-site disposal systems to be installed when, in his opinion, it may pollute well water supplies, water supply reservoirs, shellfish growing waters, bathing beaches, lakes and tidewater areas") and COMAR 26.04.02.04(H) ("If, in the opinion of the Approving Authority, a safe and adequate water supply is not available to the lot, an on-site sewage disposal permit shall be denied"). But I think we'd need state permission to prohibit sand mounds in an entire area.

EBL

-----Original Message-----

From: Faden, Michael
Sent: Monday, March 27, 2006 12:27 PM
To: Lattner, Edward
Cc: Hansen, Marc P.; Spicer, Malcolm; Boucher, Kathleen; Beatty, Jay
Subject: RE: Bill 38-05: Sand Mounds

Ed-

This memo generally seems clear, but raises 2 related questions:

- Does your conclusion mean that the County cannot limit the use of any state-approved sewage disposal method? For example, in recent water/sewer plan amendments we have limited certain multi-use systems in certain areas/zones to a certain size (I think it's 5000 mgd). Your memo implies that we cannot do so. Is that correct?
- If the County ever concludes that sand mound sewage disposal systems, if located in certain areas, have an unacceptably high risk of failure or environmental damage, must we get state permission before taking any action to prohibit or restrict their use in those areas?

Please let me know by tomorrow morning if I'm interpreting your memo correctly. Thanks.

Mike

-----Original Message-----

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Pre-Application and Preliminary Plans pending in the
RDT from 7/1/2002 to present

3/14/2006

<u>Plan #</u>	<u>Plan Name</u>	<u>Zone</u>	<u>Acres</u>	<u>Dev. Type</u>	<u>DU's</u>	<u>SF</u>	<u>Sand Mnds</u>	<u>Child Lots</u>
<u>Preliminary Plans</u>								
Y 04								
120040690	THOMPSON FARM (SECTION 1)	RDT	151.33	SF	6	0		
1								
Y 05								
12002032A	JONES PROPERTY	RDT	5.0	SF	1	0		
120050740	HILLTOP FARMS	RDT	232.7	SF	8	0		8 (MALP Family lots)
120050970	COPENHAVER PROPERTY	RDT	41.05	SF	7	0		6
3								
Y 06								
120060190	MCGOWAN SUBDIVISION	RDT	11.35	SF	1	0		
120060750	CLEMENT WEST PROPERTY	RDT	243.86	SF	9	0		
120060810	DUCKS END	RDT	28.23	SF	4	0	Y	
3								
<u>Pre-Applications</u>								
Y 03								
720030210	HEITMULLER PROPERTY	RDT	75.14	SF	6	0		3
720030360	HUTCHISON PROPERTY	RDT	103.4	SF	3	0		
720030400	DECKER PROPERTY	RDT	24.09	SF	3	0	Y	2
720030490	WOODCREST	RDT	3.7	SF	1	0		
4								
Y 04								
720040330	ANNAPOLIS ROCK ROAD PRO	RDT	100	SF	4	0		
720040370	QUICK PROPERTY	RDT	6.3	SF	1	0		
720040400	LEISHEAR FARM	RDT	440.26	SF	17	0		
720040570	FAIRHILL	RDT	75	SF	3	0	Y	
4								
FY 05								
720050120	BURNT HILL PROPERTY	RDT	1.01	SF	1	0		
720050190	STRAWBERRY RIDGE	RDT	24.16	SF	4	0		
720050220	LONG CORNER	RDT	49.6	SF	5	0		4
720050240	SHORB FARMS	RDT	20	SF	2	0	Y	
720050280	LEWIS PROPERTY	RDT	197.17	SF	4	0		
720050350	WOODFIELD FARM SUBDIVISI	RDT	105.27	SF	3	0		
720050380	STANLEY PROPERTY	RDT	106.37	SF	8	0		4
720050390	BELT PROPERTY	RDT	291.01	SF	10	0		
720050650	WHITE STORE PROPERTY	RDT	98.15	SF	1	0	Y	
9								
FY 06								
720060130	RIGGS PROPERTY	RDT	62.6	SF	2	0		
720060140	MOXLEY PROPERTY	RDT	5.31	SF	1	0		
720060210	SNYDER PROPERTY	RDT	4.71	SF	1	0		
720060310	DISCOVERY FARM	RDT	154.5	SF	7	0	Y	1
720060380	LOT 4	RDT	13.47	SF	1	0		
720060360	MOXLEY MEADOWS	RDT	70.39	SF	3	0		1
720060400	KINGSTEAD FARM	RDT	92.42	SF	3	0		
720060520	MORGAN PROPERTY	RDT	122.73	SF	4	0		
720060530	ALLNUTT PROPERTY	RDT	229.83	SF	1	0		
9								

Resolution No.: _____
Introduced: March 28, 2006
Adopted: _____

COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND

By: Council President

Subject: Establishment of Ad Hoc Agricultural Policy Working Group

Background

1. The Council is committed to the long-term protection of the County's prized 93,000-acre Agricultural Reserve, which is now celebrating its 25th anniversary, and to the support of agriculture in Montgomery County. In recent months the Council has addressed several critical issues affecting the Agricultural Reserve, with more such issues on the horizon.
2. There is widespread agreement that issues affecting the Agricultural Reserve should be considered comprehensively rather than in isolation. The Agricultural Advisory Committee, the Agricultural Preservation Advisory Board, and the League of Women Voters are among those who have emphasized this point. The Planning Board intends to include the full range of issues affecting the Agricultural Reserve in its future work program.
3. The Council would benefit from the establishment of an ad hoc working group to provide comprehensive advice on proposals dealing with interrelated issues affecting the Agricultural Reserve.

Action

The County Council for Montgomery County, Maryland approves the following resolution:

The Council establishes an Ad Hoc Agricultural Policy Working Group, comprising 10 to 15 community members with significant knowledge of the issues involved, to provide comprehensive advice on ways to ensure the long-term protection of the Agricultural Reserve and preservation of our agricultural industry.

The Council calls on the Working Group to:

- undertake a thorough review of pending and potential legislation concerning the Rural Density Transfer zone: the child lot program, the proposed building lot termination program, uses of sand mound technology, and technical tracking and use issues associated with the Transfer of Development Rights program;
- assure that this review provides a clear understanding of how the individual proposals interact with each other and considers the potential for unanticipated negative consequences;
- proceed in a way that respects the concerns of all stakeholders;
and
- update the Council on its progress and submit a final report to the Council within calendar year 2006.

Support for the Working Group will be provided by Park and Planning staff, Council staff, and outside experts as the Working Group deems necessary. The Council also requests the participation of relevant Executive Branch staff.

This is a correct copy of Council action.

Linda M. Lauer, Clerk of the Council