



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item # 11
04/15/04

April 9, 2004

MEMORANDUM

TO: Montgomery County Planning Board

FROM: Jeff Zyontz, Chief
Countywide Planning Division

SUBJECT: Zoning Text Amendments Limiting Impervious Coverage in the RDT, Rural, Rural Cluster, RE-2 and RE-1 Zones

Recommendation: Approval to Transmit Zoning Text Amendment to the District Council for the RDT, Rural, Rural Cluster, RE-2 and RE-1 Zones which limits impervious surface and reduces maximum building coverage in the RE-2 zone for introduction.

Summary: Allow impervious surfaces in the RDT up to 15% of the lot area. Allow impervious surfaces up to 20% of the lot area in the Rural, Rural Cluster, RE-2 and RE-1 zones. Reduce the maximum building coverage allowed in the RE-2 zone to 15% of the lot area from 25%. Retain all permitted uses in these zones. Do not change the uses that require special exceptions.

Background

All Master Plans that are on the edge of the sewer envelope make recommendations on the extent of the areas that should be served by community water and sewer infrastructure. The area, in which water and sewer service is provided, is sometimes referred to as the sewer envelope. Development that is on community sewer can be more intensive than development using individual septic systems. Septic systems require soils that absorb water and septic field sizes that expand with the amount of wastewater. More often than not, the amount of development that can be adequately served by a septic system is significantly less than the maximum density permitted by the Zoning Ordinance. Master Plans use the existing tools of zoning and limiting the sewer envelope to implement efforts to preserve the natural environment and rural character of wedge areas of the County. The natural environment includes the water quality and biological habitat of stream in Montgomery County. To protect these areas a number of Master Plans recommend RDT, Rural, Rural Cluster, RE-2 and RE-1 zoning in combination with recommendations to limit the sewer envelope.

Master Plans are guides for the future but all recommendations in Master Plans are not implemented through a single adoption process. Although the zoning recommendations of the Master Plan are implemented through a sectional zoning map amendment following the Plan's adoption, the water and sewer envelope recommendations are implemented through changes to the Comprehensive Water and Sewerage System Plan.

Unanticipated consequences occur when properties not recommended for sewer service in a Master Plan, then get community sewer service. Community water and sewer can accommodate significantly more development than development dependent upon septic systems. The Comprehensive Water and Sewerage System Plan defines Private Institutional Facilities as "buildings constructed for an organization which qualifies for a federal tax exemption under the provisions of Section 501 of Title 26 of the United States Code (Internal Revenue Service)." Typically the qualifying organizations build such structures as school, buildings for worship, and philanthropic institutions. Private institutional facilities (PIF) have a preferred status for sewer extension in the recently adopted Comprehensive Water and Sewerage System Plan, even when they are on areas not recommended for community sewer service.

Large lot residential zones are for the most part used for residential and agricultural purposes, however the zones also permit non-residential uses (identified in this memo) that can be private institutional facilities. Private institutional facilities have a significant public purpose that the Montgomery County Council wishes to reinforce through permissive policies. There are limited areas where sewer service can be provided where the extension does not cross an intervening property. The results of institutions using this policy are clusters of sites along the edges of the sewer envelope, resulting in a high percentage of imperviousness in areas that were planned to be environmentally friendly and a continuation of rural scale development.

Single-family homes and a number of private institutional facilities are allowed unconditionally, in residential zones. The Zoning Ordinance, which was developed with the knowledge that a significant portion of rural zones and the agricultural zone would be outside of the sewer envelope, does little to control impervious surface coverage.

There are limits on building coverage in the Zoning Ordinance. These need to be examined in the RE-1, RE-2, Rural, Rural Cluster, and RDT zones in light of the County's heightened concern for water quality. The existing building coverage limit continuum between zones is contrary to the density of the zones themselves. The RE-2 zone, which allows half the residential density of RE-1 (two acres for each house compared to one acre for each house), has a maximum building coverage of 25% (that would be a structure with foundation enclosing almost 22,000 square feet) while the RE-1 zone would permit building coverage of 15% (a foundation enclosing 6,500 square feet). Moreover, there are no limits on impervious coverage. Impervious surfaces includes buildings, driveways, parking, patios and other asphalt / concrete covered land where water cannot infiltrate into the soil. The zoning text amendment being proposed uses the phrase total lot coverage to include all impervious surface area.

The County Council made clear that it did not want the Comprehensive Water and Sewerage System Plan to be encumbered with restrictions relating to the development standards. In November 2003, the County Council directed the Planning Board to address concerns about

the land coverage of private institutional facilities (raised in Planning Board recommendations), by recommending changes to the Zoning Ordinance. The County Council also desired a series of options to address the problem raised by the Planning Board.

Context

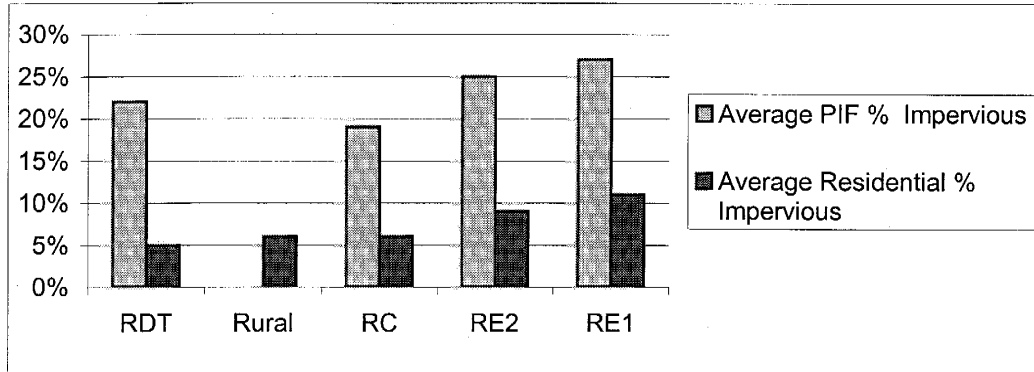
The zoning pattern in Montgomery County is the implementation of the General Plan for Montgomery County. The wedges and corridor plan sets apart the agricultural and residential wedges for low-density treatment. The agricultural wedge is described in the approved and adopted General Plan Update as “clean air shed” and “a mechanism to protect the quantity and quality of water resources.” One of the challenges for the residential wedge is “protecting environmentally sensitive areas.”

There are relatively few zones which have areas outside of the sewer envelope: Rural Density Transfer (RDT), Rural Cluster (RC), Rural, Residential Estate 2 Acre (RE-2), Residential Estate 1 Acre (RE-1). The zones with “Rural” in their name are found in the agricultural section of the Zoning Ordinance. The residential estate zones are found in the residential section of the Ordinance. The vast bulk of these zones are being used for agricultural or residential uses. The most recent Council action on the Upper Rock Creek Master Plan, supports the concept that limiting impervious cover beyond the existing limitations in the RE-1 and RE-2 zones, from all land uses, is necessary to protect water quality.

As noted above, there are no impervious surface limits (total lot coverage limits) in these existing zones for any uses. (There overlay zones that do limit impervious surface in some areas.) Private institutional facilities (PIF), in particular, represent a highly intensive land use, particularly in comparison to other uses in the zone. More than 78% of large lot zoning capacity has already been used. Limitation on these zones if adopted, would at most affect the remaining 22% of the development capacity of these zones. Where development relies upon septic systems, the actual number of dwelling units that can be accommodated is significantly less than the maximum density allowed. The provision of sewer enables development to reach maximum zoning capacity. The estimate of potential dwelling units takes these factors into account.

Zoning	Total Acres	Existing Dwelling Units	Average % Existing Impervious (Built lots)	Average Acres Per Dwelling Unit	Potential Additional Dwelling Units	Acres Of PIF's	Average PIF % Impervious
RDT	103,067	3,318	5%	20	1,605	138	22%
Rural	2,756	201	6%	5.3	132	0	N/A
RC	23,876	3,492	6%	6.25	941	333	19%
RE-2	32,938	6,600	9%	3.8	1,806	709	25%
RE-1	10,522	5,131	11%	1.7	1,004	123	27%

**Average Impervious Surface on Developed Lots
for Residential and Private Institutional Facilities
in the RDT, Rural, Rural Cluster, RE-1 and RE-2 Zones**



The Zoning Ordinance does not have any corresponding definition to private institutional facilities that exists in the Comprehensive Water and Sewerage System Plan. The Zoning Ordinance does, however, have specific permitted uses, which could fall within the Comprehensive Water and Sewerage System Plan’s definition of “private institutional facilities.”

The following uses now permitted unconditionally in the Zoning Ordinance in the wedge zones also fit with the private institutional facility definition:

- Fire Station (publicly supported),
- Opportunity housing projects (not permitted in RDT, RC or Rural),
- Library and museums (not permitted in Rural or RDT zones),
- Churches, convent, monastery and/or other places of worship.

Other charitable or philanthropic institutions are generally allowed through the special exception process. The private institutional uses that require special exceptions include:

- Housing for senior adults or persons with disabilities,
- Life care facility,
- Charitable or philanthropic institutions,
- Child day care center,
- Day care facility for more than 4 senior adults and persons with disabilities,
- Domiciliary care home for more than 16 residents,
- Educational Institutions, private
- Hospice care facilities,
- Hospitals,
- Nursing home,
- Private clubs and service organizations.

In the agricultural zones, charitable institution can only be allowed in existing buildings. When this memo refers to private institutional uses, it is referring to the list of uses above.

Scope

The zones in question comprise over 24,133 parcels of land, that add up to 173,160 acres of land. There is no problem of excessive impervious surfaces on 99.5% of the developed parcels in these zones.

The severity of the impacts is related to the scale of the project relative to the size of the parcel and the concentration of impervious surface. It is not related to the use. A large-scale single house with long driveways can have more impervious surface than a small-scale institutional use. The proposed zoning amendment applies to all uses in these zones.

There are currently a total of 78 PIF's in all zones being discussed herein. These 78 sites use just under 1,303 acres of land. The institutional facilities in these zones represent 0.74% of the total area of the zones in question. The greatest percentage of private institutional facilities occurs in the RE-2 zone (2.2%). Although it affects few property in the aggregate, when private institutional facilities cluster together (as required by the Comprehensive Water and Sewerage System Plan), there are significant impacts to water quality and the rural character of the area. **Staff does not recommend only having impervious standards for private institutional uses.** Any limitation on impervious surface should include all uses in the zone.

All land uses including, private institutional facilities are already subject to impervious limitations in the Upper Paint Branch Special Protection Area. That limitation is part of the restrictions in an overlay zone that covers the Upper Paint Branch Watershed. The proposed Special Protection Area in Upper Rock Creek will have an 8% impervious surface limit. The recommendations herein would not change the overlay zone controls. The approved and adopted Functional Master Plan for the Patuxent River Watershed includes limits on the impervious surface of new developments (those that are required to go through the subdivision process) to 10%. A portion of the Clarksburg SPA has an impervious limit established in the Clarksburg Master Plan. Staff does NOT recommend changing those limitations in any way.

Options

Zoning is a flexible tool for controlling development. There is a continuum of controls, which can be brought into play. The options can run from prohibiting uses, to requiring a special exception, requiring a site plan, to limiting the height, bulk or setbacks of buildings and parking to limiting total lot coverage to make no changes. The following reviews those options and highlights the advantages and disadvantages of pursuing those options. They begin with the most restrictive option and proceed toward the least restrictive option.

Prohibition

The County Council certainly has the power to prohibit any particular use from any particular zone. Private institutional facilities are not so great a problem, however, that staff would recommend prohibiting them from the zones in question. They help to make a community fully functional for its residents. They exist successfully on both septic systems and on public sewer. The concern raised by the Planning Board questions the scale of projects relative to their lot size. Even in the agricultural zones, the scale of use relative to the site can be compatible with the character of the landscape and environmental protection. It has been the tradition of Montgomery County to be permissive of private institutional facilities. In staff's view, it is not any particular private institutional use that is a problem. ***Staff would therefore not recommend prohibiting any of these uses from any of the zones in question.*** The problem being addressed is the environmental effects of concentrated impervious surfaces. Any land use can have a positive or negative effect.

Private Institutional Use Floating Zone

A zone could be crafted to permit private institutional uses that "floats" above the zoning on the ground after a Master Plan. The zone could then "land" as approved by the County Council, according to the criteria set out in the zone itself. Zoning entails a much higher level of public scrutiny than water and sewer category changes. The hearing examiner process permits the documentation of all testimony.

If private institutional uses were prohibited in some zones, then there would be advantages to having such as zone. ***Staff does not recommend a floating zone*** for the following reasons: 1) Staff is NOT recommending prohibiting these uses from any zone, 2) Crafting such a zoning would be complex in determining the findings necessary to apply the zone, and 3) This approach would not comprehensively address impervious surfaces in existing rural zones.

Special Exceptions

A zone allows most land uses unconditionally. Some land uses require applying for and receiving approval from the Board of Zoning Appeals to be allowed. This application is required for a "special exception". A number of private institutional uses such as "Charitable or philanthropic institutions" are already special exceptions in the zones of concern. The development community considers the special exception process a burden. The submission requires developing data about the proposal and its impacts. It requires a public hearing. It can require the additional submission of a site plan as a condition of approval. It can be denied for a variety of reasons including non-conformance to the adopted Master Plan. Specific standards of findings can also be established.

Special Exception Options

- 1) Make all private institutional facilities special exceptions within the agricultural and rural zones

At present, the following land uses do not require a special exception: fire station (publicly supported), opportunity housing projects (not permitted in RDT, RC or Rural), library and museums (not permitted in Rural or RDT zones), churches, convent, monastery and/or other places of worship.

Staff does not recommend this option. Making all non-residential uses go through the special exception process creates a greater burden than necessary to achieve the desired results.

- 2) Of the uses that require special exceptions, create development standards to avoid clustering with each other (“no new special exceptions shall be approved unless there are less than X number of other special exceptions within an X mile radius of the applicant”)

Staff does not recommend this option. The very nature of the Council policy on extending sewer tends to concentrate private institutional uses.

- 3) Limit the impervious surface coverage of any future special exception in the zones being reviewed.

Staff recommends this option. As special exceptions do not cover all uses which are highly impervious. For those uses which are now required to undergo the special exception process, lot coverage standards can be required. (See the attached proposed zoning text amendments 59C 1.32 and 59C 9.4)

Site Plan

Site Plans allow the Planning Board to review a detailed layout of a proposed development. For the most part, site plans are required where the developer is pursuing an “option” within a zone or the developer has applied for a zone that has a site plan requirement. Special exception uses sometimes require site plans, but not all private institutional uses require special exceptions. The benefits of site planning for all private institutional uses do not outweigh the burdens to property owners when the only purpose of the site plan is to limit impervious surface. *Staff does not recommend requiring site plans for all private institutional uses.*

Staff recommends requiring a minimal site layout for uses that do not require special exceptions but have building coverages that exceed a trigger point for each zone. (See the attached proposed zoning text amendments 59C 1.328 and 59C 9.46 footnotes.)

There is some burden on those submitting plans and those reviewing plans that would increase to document and review all impervious surfaces on a site. That information is currently being provided for sediment control/storm water management permits (when the land disturbance exceeds 5,000 square feet). The information on impervious surfaces is not provided on the present building permit for a new structure. Based upon past experience, very few sites will exceed the impervious caps being proposed. Requiring a site layout where buildings take up a relatively large portion of the site, provides a tool to enforce the limitation on impervious area that applies to all properties.

Building Standards

Zoning can establish any number of standards that control development. Height, bulk and setbacks are the most common of these controls. Some controls relate to particular uses. In some cases, the definition of the allowable use also sets the building standard. This is often the case with uses allowed in existing single-family dwellings. Setbacks are mechanically applied. Setbacks do not respond to variations necessary to respond to the natural environment.

There is a maximum building coverage limit in the Zoning Ordinance of 10% in the RDT, Rural, and RC zones, a 15% limit in the RE-1 Zone, and a 25% limit in the RE-2 zone. Staff does not know the logic for allowing a larger percent of building coverage in RE-2 – a zone which is mostly used for residential development at a density of one house for every 2 acres, than RE-1 – a zone that permits a density of one house for one acre. The parking requirements (assuming surface parking) would limit the amount of building coverage to something well below 25% of the lot. *Staff would support limiting the building coverage of the RE-2 zone. (See zoning text amendment attached 59C 1.328.)*

The present standard, which limits the percentage of a lot that can be covered by a building, does not limit impervious surface, which includes parking, driveways, patios, and loading space. The zoning code does require parking based upon specific building uses. There is no limitation on parking currently in these zones. The percentage that buildings cover the surface of a lot, can be used as an indicator of total impervious surface.

Staff recommends limiting the building and hard surface coverage including parking in the RDT, Rural, Rural Cluster, RE-2 and RE-1 zones for all development in these zones. (See attached zoning text amendments.) There is no question that private institutional facilities are a more intensive use than single-family development. The limit on building coverage should recognize that and permit an intensive use that applies to all allowable uses and does not exclude any legal uses. The impervious surface coverage of existing private institutional facilities can be a guide in setting a standard. To that end, the following table reflects the medians of existing total lot coverage by PIFs and staff recommendations.

Zoning	Existing Building Coverage Max. (As a % of Lot)	Median Impervious For Existing PIFs	Recommended Total Lot Coverage	Recommended Building Coverage Requiring Site Layout Design
RDT	10%	14.1%	15%	3%
Rural	10%	None currently existing	20%	3%
RC	10%	19%	20%	7.5%
RE-2	25%	22.5%	20%	8.5 %
RE-1	15%	21.3%	20%	11%

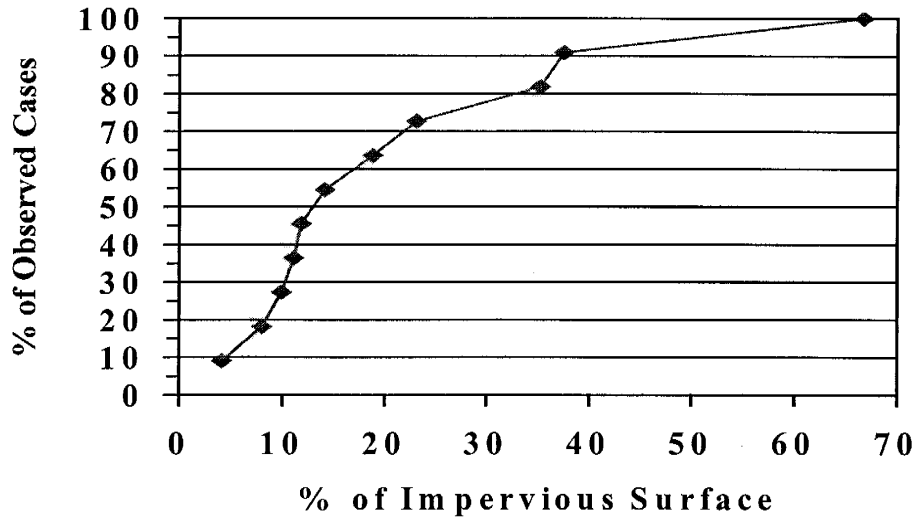
Following this memo are charts for each zone indicating the cumulative distribution of existing impervious surface for private institutional uses (page 10). The recommended limits are two to three times the impervious surface expected from the average impervious surface of these zones. This recognizes the needs of private institutional uses. The vast bulk of properties would not be affected by the staff's proposal as they are below the standards proposed. In any sub watershed, water quality is best assured by having total impervious surface 8% or below. The limits are set balancing the needs of permitted uses in these zones and water quality. Staff recommends specific lot coverage maximums with best management practices for the control of storm water. Clustering of dwelling units is a permitted option in the RE-1 zone with lots below one acre in size and open space provided on separate lots. Staff does not recommend having a total lot coverage limit for lots which use that clustering provision in the RE-1 zone.

Grandfathering

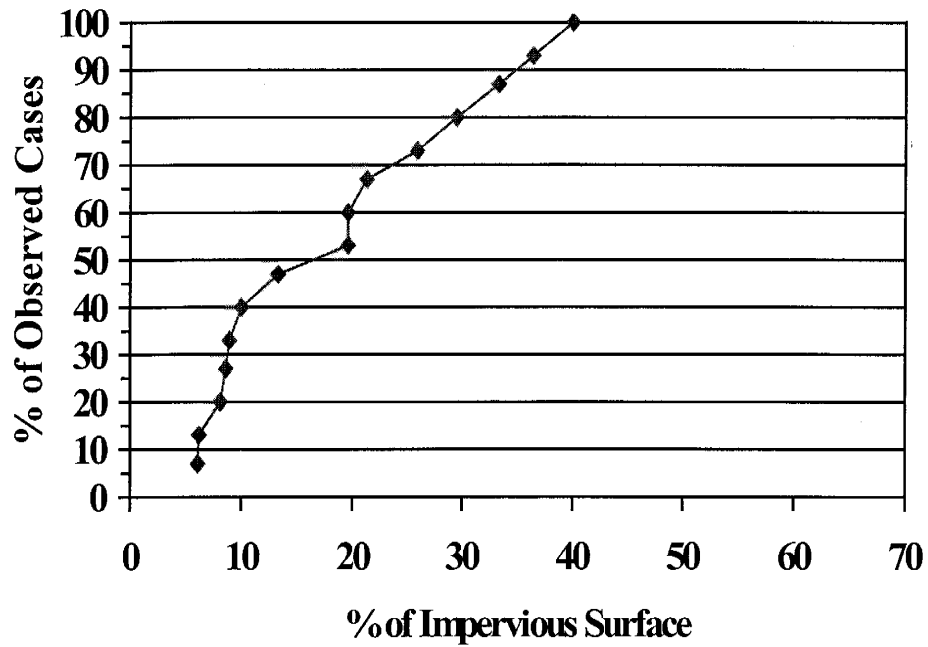
Any limit on impervious surface that protects water quality will be exceeded by some existing and approved development. Staff does not want to create non-conforming properties by virtue of this amendment. However, staff recommends making additional impervious surface resulting from expansion of the existing use subject to the new limitations.

Background charts

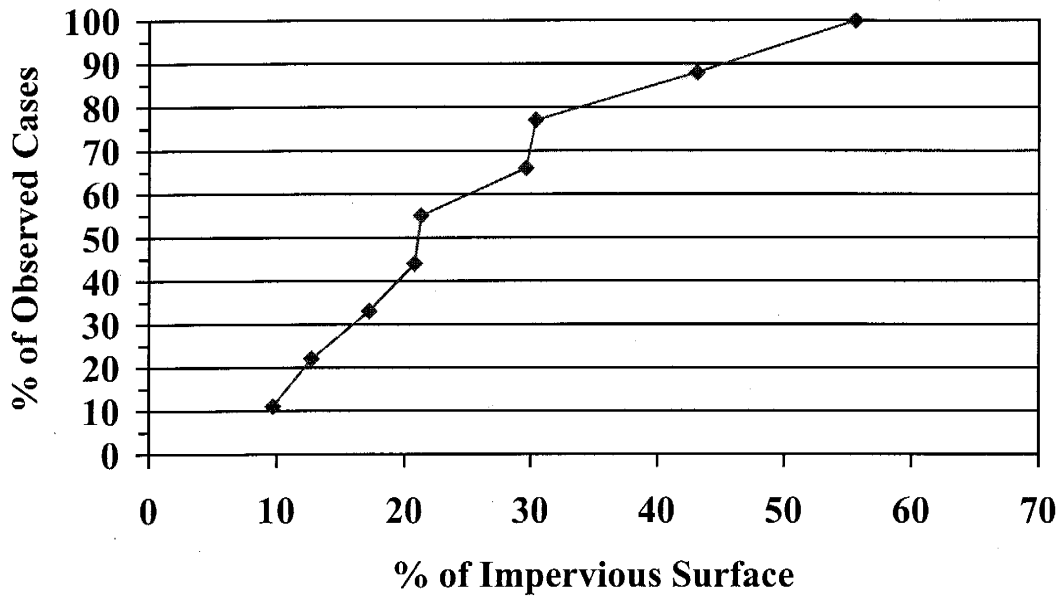
**Cumulative Distribution of the Percentage of Impervious Surfaces
of PIF's in the RDT Zone**



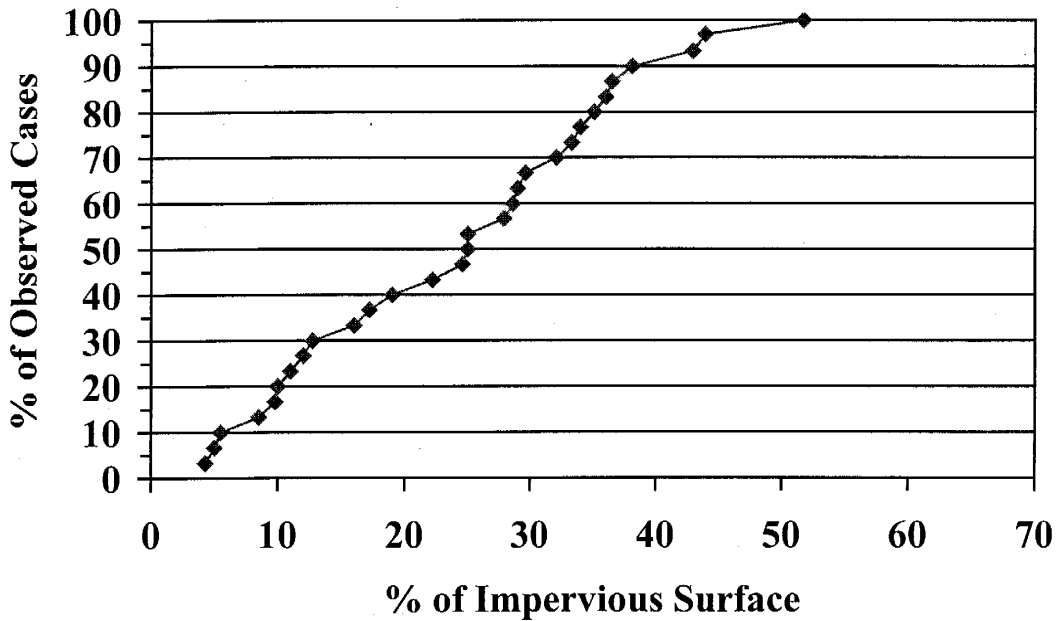
**Cumulative Distribution of the Percentage of Impervious Surfaces
of PIF's in the RC Zone**



**Cumulative Distribution of the Percentage of Impervious Surfaces
of PIF's in the RE-1 Zone**



**Cumulative Distribution of the Percentage of Impervious Surfaces
of PIF's in the RE-2 Zone**



ZY:ss
Attachment