

Member Comments for Proposed Rules on Impervious Surfaces, Run-off Capture and Control Requirements

Comments about Rules re: Impervious Surfaces	Comments re: Rules on Run-off Capture and Control Requirements	Response
I am in favor of the proposed rules regarding Impervious Surfaces. We are already over the amount of impervious surfaces to prevent near-constant flood issues, which cost the cooperative notable spending now, but will cause great expense very soon		Thank you for your comment.
I have a question about the proposed "GHI Impervious Surface Rules". Rule B.2 says, "Pervious surfaces such as patios and decks may cover a single contiguous area up to a maximum area of 250 sq ft or 20% of the gross yard area, whichever value is smaller..." Does the 'gross yard area' refer to the home's total yard area (gardenside+serviceside), or only to the yard in which the pervious surfaces are added?		The 'gross yard area' refers to the home's total yard area (gardenside+serviceside+endside) not covered by impervious surfaces. This has been clarified in the text
I understand that homeowners, I think it's a statewide thing, can get credits for turning impervious surfaces to pervious surfaces. And I'm wondering if ghi also can qualify for that credit. Because it would be great to see more of the sidewalks in GHI, made permeable. Just a thought on the topic. Perhaps the city of Greenbelt could help with that. I understand part of the ARPA funds could be used for stormwater management.		It is the Storm Water Management Subcommittee's understanding that GHI can qualify for the credit you mentioned.
Regarding the GHI Impervious Surface Rules, in Section B. paragraph 1, please change "sidewalks" to "walkways" to accurately describe what is being referenced.		The text has been revised as suggested.
Impervious Surface: Perhaps the order of the sections might be changed to A. Purpose B. Background C. Definitions D. Rules E. Allowable Materials	I wonder if the section called G. Rain Check Rebate Program in the Impervious Surface document might be better placed at the end of the second document about Run Off Capture. Just a thought.	The suggested order of sections was discussed by the Subcommittee and the current section order was the order eventually decided upon. The Subcommittee decided not to rearrange the section order because the Member Handbook and Board Policy Manual Standardization Task Force is currently developing a standard format for the entire Member Handbook.
I think it should be made more clear in the rules that an elevated deck with impervious composite materials is allowed if there are gaps between the boards.		The text has been revised as suggested.

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<p>Thoughtfully researched; written in a manner that all can understand. A needed addition to GHI 'book of standards'.</p>	<p>When an addition to a unit is being proposed, why isn't the downspout storm water made to access the original underground storm water system? the suggestions made in this draft (rain gardens, dry wells) all good, for sure. Within recent years, a brick unit in our neighborhood, an 2-story addition was constructed. the storm water was directed to some splash pans to the NOW tiny gardenside yard. Sad! How this is allowed, I don't understand...If staff would like see what I have done to:- direct storm water-limited lawn-gardens for water absorption</p>	<p>Thank you for your comment.</p> <p>The determination to connect addition downspout storm water to the underground storm water system is made on a case-by-case basis by GHI staff depending on the unique situation of each addition.</p> <p>Please contact Peter May, GHI Program Manager for Green Infrastructure and Stormwater Management at pmay@ghi.coop regarding what you have done to direct storm water-limited lawn-gardens for water absorption.</p>
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Attachment #1

Overview

All in all these are good rules. Most of my comments are minor and serve to clarify some issues. I do not see any significant problems with the proposed new rules.

Response: Thank you for your comment.

Draft New Rule -Impervious Surfaces.pdf

There are various grammar and style errors, but let's not worry about those. Also, some parts read like they have been cut and pasted from other documents.

Response: Thank you for your comment.

Many of the swales in GHI yards are non-functioning. Should GHI make a systematic effort to identify these and fix them?

Response: Peter May, GHI Program Manager for Green Infrastructure and Stormwater Management, has investigated the functioning of GHI's swales where members have reported issues. With a few exceptions, GHI's swales are functioning as intended. Mr. May is currently working with Members and Technical Services to address those swales that are non-functioning.

Section E.2 of the Draft New Rules says that light-coloured permeable materials are preferred. This is reasonable, but the other surfaces, structures, plants, and whatnot in the yard should be considered when selecting the material's colour. There are may be (sic) situations where a dark-coloured permeable material is more appropriate. Ditto in Section F.1.

Response: Agreed. For that reason, the rules state light-colored permeable materials are preferred, not mandatory.

Draft New Rule Section XK. Runoff Capture and Control Requirements.pdf

The proposed rules need to be edited for grammar and consistency with the rest of the Member Handbook.

Response: Editing of the proposed rules for grammar and consistency with the rest of Member Handbook will be addressed as part of the comprehensive Handbook standardization process currently underway by the Member Handbook and Board Policy Manual Standardization Task Force.

Section XK.1

Remove "quality of life" from the purpose statement. It is vague concept and too open to subjective interpretation.

Response: The text has been revised.

Patios and decks are not necessarily impervious. They should be removed from the list in 1.b or the wording should be changed to make it clear that not all decks and patios are problematic.

Response: The text has been revised to replace "and" with "and/or" to address the comment.

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Section XK.2

This Section is superfluous.

Response: A deliberate decision was made by the Subcommittee to retain this text.

Section XK.4

Change “construction” to “construction or installation of” in the first sentence. It is unlikely that any member is going to construct their own rain barrel.

Response: The text has been revised as suggested.

Section XK.5

Change “construction” to “construction or installation of” in the first sentence.

Response: The text has been revised as suggested.

Section XK.6

Change 6.c to make it clear that rain gardens should be at least five feet away from any foundation, not just the foundation of the member’s unit.

Response: The text has been revised as suggested.

Section XK.7

Change 7.b to make it clear that dry wells should be at least 10’–12’ from any foundation.

Response: The text has been revised as suggested.

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Attachment #2

Please consider my comments and questions regarding proposed rules re: impervious surfaces and runoff capture and control requirements. Thank you to the Board, Committee Members and the Stormwater Sub-Committee for their work addressing this important issue.

1. Question/ comment about the Rain Garden at 20 Court Ridge

Are trees supposed to be growing in the rain garden? I suspect that during the pandemic the maintenance on the garden was paused. As a result, there are volunteer trees springing up throughout. I suggest that regardless of future events this and other drainage controls within the community should receive priority maintenance. It would be a terrible shame to lose the benefit and bragging rights of this rain garden project and worse if the funders stop supporting future similar projects at GHI due to neglect, if that's the case.

Response: Thank you for your comment. GHI Maintenance personnel and Peter May, GHI Program Manager for Green Infrastructure and Stormwater Management have been made aware of your observation.

2. Comment re: language in draft GHI impervious surface "Rules"

By stating this as a suggestion (quote below from first paragraph) it presents the rule as being optional and could be interpreted as not having a rule at all: "GHI encourages Members to keep their yards in their natural condition as much as possible." Can this be re-worded in a way to convey the expectation?

Response: Because the requirements for maintenance of GHI yards in Sections III, IV, and V of the member handbook allow for landscaping, the term "encourage" was determined to be more appropriate.

3. Neither proposal addresses the existing drainage problems within the community. Without a plan or rules to address these, we will continue to experience the negative effects of poor drainage and the associated future repair costs.

Several issues which are easily remedied with maintenance by members and staff, come to mind, if these aren't being addressed with the spring inspections and by management, I believe the subject deserves serious consideration. I've attached some photos to support my observations:

Response: Peter May, GHI Program Manager for Green Infrastructure and Stormwater Management, has investigated the functioning of GHI's swales where members have reported issues. With a few exceptions, GHI's swales are functioning as intended. Mr. May is currently working with Members and Technical Services to address those swales that are non-functioning. Mr.

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May and other GHI staff are actively working with Members and the City of Greenbelt to address existing drainage problems in GHI. The Storm Water Management Subcommittee is also actively working with Mr. May and others to address these issues.

a. I observed that GHI did not perform a fall leaf removal last year. This may have been due to the staff shortages from the pandemic or intentional. There's a narrative circulating that leaves should not be removed but left to provide natural mulch and protect pollinators. Unfortunately this is only partially true. If leaves are 'mulched' by mowing over and crushing them and there aren't too many then yes, they can. However, what has happened here is that there are too many leaves. And they often don't stay in place but blow out of the common areas into yards and along fences, damming up (interior) sidewalks. This prevents natural drainage and is a hazard and a liability when freezing occurs in winter, obscuring the walkways and often making them impassable. I am suggesting that fall leaf removal is essential.

Response: This is a topic that has received much discussion by the Storm Water Management Subcommittee, the Woodlands Committee, and GHI staff. The problem does not lend itself to easy solutions and discussions are ongoing.

b. Although members are expected to maintain the perimeters of their yards even if they fall outside the fence line (by 12 inches?) when there is an adjacent sidewalk, this is not being done in some cases or enforced. There are (interior) walkways within the community that are covered by a third or more with overgrown plantings and weeds and in one case, volunteer trees! In these instances natural runoff is impossible. (If this continues, perhaps there should be a rule about who has to walk on the grass or mud if two people are walking in opposite directions!) I am suggesting here that walkways should be 100 percent clear all year long. And if sidewalks are clear the landscape maintenance contractor will be able to edge both sides, improving drainage and runoff.

Response: Thank you for your comment. Your suggestions have been provided to GHI staff.

c. Lastly, poor runoff damages our property resulting in additional expense repairing or replacing sections of sidewalks before their time. Poor drainage on walkways can be a cause of heaving which additionally creates trip hazards. As a member concerned about the ability to keep up with annual increases of coop fees I suggest that we should continually address prevention measures.

Response: Thank you for your comment. One option the Storm Water Management Subcommittee is looking into is the use of pervious concrete for walkways and/or infiltration trenches to control runoff.

I appreciate consideration of my comments and welcome any communication.

Response: Thank you for providing your comments.

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Attachment #3

1) Comments on : GHI IMPERVIOUS SURFACE RULES

I think that it might be a lot easier to understand the rules if they had a separate sections (sic) for patios and decks. The materials and construction are very different, and people generally know if they want a patio (concrete, stone or pavement) or a deck (elevated, using wood or plastic).

Response: The text has been revised in response to other member comments regarding elevated decks.

In fact there may be separate rules already for patios and decks. No?

Response: Yes. These rules are contained in Section X.

I find the 20% of gross yard area is an unfair punishment for units with tiny yards (some 1 bedroom units I guess, but GHI must know how small the smallest yards are). How many yards are less than $250 \times 5 = 1250$ square yd? If none, then the 20% is not needed anyway.

Response: Because the purpose of the rule is to limit address increasing stormwater runoff as a result of climate change, it is necessary to limit the amount of green space covered by impervious surfaces. Information obtained from GHI staff indicates that most patios in GHI are no larger than 250 square feet.

The rules does (sic) not consider the very poor value of lawns as quasi-pervious surfaces. Our lawns growing on heavy clay are the closest thing to concrete...

Response: Unfortunately, the natural geology of the Cooperative is not conducive to rapid water infiltration.

If someone has a small yard, with 1/2 of it with a pervious patio (or deck) and the other 1/2 planted with deep rooted native plants the yard would perform better than 100% lawn.

I realize that it would not be easy to take this into account and native plantings could be easily returned to lawns by the next owner, but at least I would like to see some STRONG encouragement for everyone to replace lawns by native plantings.

e.g. What about an award for largest area of lawn replacement every year?

Response: Thank you for your comment. Plantings in GHI yards is addressed in Section V of the Member Handbook.

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The rules says that materials need to be pervious, so the elimination of pervious asphalt is odd. May as well say that asphalt surfaces in general are not permitted at all for anything (e.g. extra parking, walkways, patios). Is the reason for which pervious asphalt is excluded because it is not pervious enough? or for aesthetic reasons?

If not "pervious enough" then shouldn't some kind of measure of "perviousness" used? (e.g. I see that a runoff coefficient exists, but this is not my specialty). Different pavers may also have varying coefficient of perviousness.

Response: The prohibition of pervious asphalt in GHI yards is based on environmental factors (e.g., leaching of polyaromatic hydrocarbons) and the urban heat island effect of black surfaces.

In B3. "existing swales shall not be blocked by any structure or altered in any way by a Member that would compromise the functioning of the swale".

Isn't time to clarify that planting deep rooted natives in swales is actually useful and increases the function of the swale? Plants would not "blocking" the swale (unless members pile up a lot of mulch everywhere).

Response: If determined by GHI staff that proposed plantings in swales would not compromise the functioning of the swale, such plantings would not violate the prohibition.

Other smaller comments:

Isn't the roof of a new shed a "new exterior surface structures"? I think it is... so they cannot be made of impervious materials? That is quite odd. Clarify.

Later in the definitions I see that sheds are excluded... It would be a lot easier to have the background and definitions before the rules

Response: The suggested order of sections was discussed by the Subcommittee and the current section order was the order eventually decided upon. The Subcommittee decided not to rearrange the section order because the Member Handbook and Board Policy Manual Standardization Task Force is currently developing a standard format for the entire Member Handbook.

In E:

The text mentions only "wooden boards" (for decks I assume), but what about all the newer synthetic board materials? Not allowed? AH! later on the txt discuss the composite boards. So please remove the word "wooden" from the 1st sentence of Section E

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Response: The text has been revised for clarity.

In E3: Permeable Pavers. Does that include flagstones, or do flagstone go with bricks? or in a separate section.

Response: Flagstones have been added to Section F. Landscaping Rocks

In E5c the text says: "Permeable concrete does require some maintenance to retain its permeability". Please explain what kind of maintenance is required (I have no clue). If difficult, then I would only allow concrete if owners promise to maintain it, and future owners as well.

Response: Because the type and frequency of routine maintenance depends on things such as the individual site and sedimentation sources, a single set of maintenance procedures is not possible. Each Member should work with their contractor to develop a site-specific maintenance plan.

In E6: I think the sentence " Boards used for decking and porch flooring typically have spaces between them, allowing water to flow between the boards to the underlying soil. " should go in the list of rules for decks. It is a rule after all.

Response: The referenced sentence is not a rule and, therefore, will not be added to Section X.

2) Comments on NEW SECTION XK. RUNOFF CAPTURE AND CONTROL REQUIREMENTS

The content seems fine but I really do not understand when this will be used?

Are those rules for people who volunteer to install rain gardens or something else on their own? or are we talking about mandatory mitigation measures that owners have to take if they add a new extension or a shed? Or is it something that will help people with wet yards? Unclear.

Response: These are mandatory mitigation measures that Members must install if they add a new extension or a shed. These rules also provide guidelines for those Members who voluntarily install rain gardens, etc. The text has been revised to clarify the dual nature of the requirements.

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Title: is the section title consistent with other sections. e.g., here it says "requirements" but the other proposed section says "rules". Isn't the whole book about rules and requirement anyway so why even include those words.

Response: *The terms "rules" and "requirements" are both used throughout the Member Handbook. A Technical Editor has been to assist GHI staff and the Member Handbook and Board Policy Manual Standardization Task Force in standardizing the language through the Handbook.*

You may want to say "Stormwater runoff" instead of just "runoff"

I do not understand when a permit is required and when it is not. Clarify. In general I like to understand why the permit is required.

Response: *The text has been revised to clarify when a permit is required. Permits are required for some of the mitigation measures (e.g., rain gardens, dry wells) because the design of these measures (e.g., depth, extent, placement, etc.) is specific to the yard in which it is proposed to be constructed. For that reason, a permit is required so Technical Services staff can evaluate the design in light of the specific yard where it will be constructed.*

Should the section start with something like: Members who are eager to participate in the reduction of stormwater runoff from their yards can take one or more measures. Those measures include: X Y Z. A permit is required when XYZ. During the permit process GHI staff will need to verify that the proposed measure does not negatively affect the integrity of the building, the function of swales, and underground utilities.

Response: *The text has been revised to clarify the permits issue.*

At the end it says: "Requirements for rainbarrels and cisterns are contained in Section XXIII of this Handbook." Oh no... **Please combine all materials related to rainbarrels together in a single section (this section seems best).**

Response: *Thank you for your comment. Part of the ongoing Member Handbook standardization task includes evaluating the current structure of the Handbook and determining if sections should be combined for clarity and ease of use by Members. The Subcommittee will forward your suggestion to the Member Handbook and Board Policy Manual Standardization Task Force for consideration in restructuring the Member Handbook.*

In general I find the example designs provided too vague to be useful, and too complex to be attractive for a member to do on their own. E.g. the dry well need to be 8' deep? Noone (sic) is going to do that on their own. Is something less deep useful at all?

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Are there simpler rain garden designs that one can do easily on their own in their gardens? Do they absolutely need to be 3 feet deep total? What if I wanted to do something smaller myself, e.g. one foot deep? Is it useful? Do I still need a permit? More questions than answers or guidance in the document.

Response. *Due to the site-specific requirements of a dry well or raingarden, it is stated in XK. 3. That "any dimensions included in the example measures...are for illustration purposes only and are not pre-approved design dimensions. Each measure proposed for construction must be designed specifically for the Member's yard." Therefore, a permit would be required to install any dry well or raingarden. Members are encouraged to work with their contractor and Technical Services staff in formulating a design.*

Once again encouraging members to plant deep root natives in their yards (even the swales) is a useful and practical measure to address runoff, is easier, and does not require a permit.

For that reason I would prefer to see a document with the 1st section encouraging the planting of deep rooted natives (with examples), then section 2 about rain-barrels because people know them better, then and only then the more complex measures (ideally with detailed examples of simpler designs than what is shown now.)

Response: *Thank you for your suggestion.*

Small comments:

In 1b: the text says "Additions, patios, decks, sheds, etc. are impervious and prevent or substantially impede the natural infiltration of water into the underlying soil."

May be say "Additions, sheds and impervious decks or patios" since the other proposed rules states that new patios and decks need to be pervious.

Response: *The text has been revised to address the comment.*

I

n "Figure 1. Typical Raingarden Cross-Section":

I think the figure is unclear as to what the function of the "underdrain". Does this tube actually need to drain to a lower area? (hard to do in most cases) or is its role to hold water until the water can infiltrate the soil. Linking to complete practical design documents would be best.

Response. *The actual design of the underdrain would be part of the overall design of the raingarden and would depend on the specifics of the Member's yard. As stated previously, due to the site-specific requirements of raingarden, the drawings are for illustration purposes. Any proposed raingarden must be designed specifically for the Member's yard.*

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Attachment #4

Member Comments

re: Proposed Rules

re: GHI Impervious Surface Rules

16 May 2022

- Change B. 1. d. to read:

Multiple allowable pervious materials are described in Sections E and F below.

Response: The text has been revised as suggested.

- Recommend differentiating between fully pervious surfaces, such as gardens planted with trees, shrubs and herbaceous plants, and semi-pervious surfaces, such as vegetated roofs, permeable paving, landscaping rocks, and porches and decks erected on pier foundations that maintain the covered surface's water permeability. Here are examples (added text highlighted):

A. PURPOSE

1. Part of GHI's mission is to maintain, protect and enhance the assets of our cooperative. One of these assets is green space, including swales. GHI encourages Members to keep their yards in their natural condition as much as possible. This is consistent with the original design of Greenbelt as a garden city. Swales are part of the original design of GHI and are a natural way to control runoff and promote drainage. The impervious surface rules herein do not limit the use of fully permeable green space, such as gardens planted with trees, shrubs, and herbaceous plants.
2. The impervious surface rules herein are intended to help maintain the benefits of natural landscaping by limiting the amount of impervious surface in GHI yards and requiring use of permeable and semi-permeable materials. These rules are intended to address increased stormwater runoff, reduce or prevent flooding in GHI, and reduce negative effects on area streams. Limiting the amount of impervious surface area in GHI also helps Prince Georges County meet its requirement to reduce pollution and flooding caused by rainfall.

B. RULES

1. Any new exterior surface structures (meaning those partially or totally outside of the Member's unit's indoor liveable space) such as decks, patios, and walkways other than the access sidewalks, must be constructed using pervious and/or semi-pervious materials.

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- a. Exterior surface structures may not be constructed with impervious materials such as concrete, asphalt, or non-porous composite or conglomerate materials.
 - b. Use of porous asphalt in GHI yards is not allowed.
 - c. Exterior elevated structures, such as decks and porches, may contain concrete pylons in their design.
 - d. Multiple allowable pervious and semi-pervious materials are described in Sections E and F below.
2. Semi-pervious exterior surfaces such as patios and decks may cover a single contiguous area up to a maximum area of 250 sq ft or 20% of the gross yard area, whichever value is smaller, or multiple distinct areas totaling no more than 250 sq ft. or 20% of the gross yard area, whichever value is smaller. Previously existing impervious exterior surface structures such as patios and decks count against the total maximum allowable square footage noted in this rule.

D. DEFINITIONS

1. Impervious surface: a hard surface area that prevents or substantially impedes the natural infiltration of water into the underlying soil, resulting in an increased volume and velocity of surface water runoff. Impervious surfaces include, but are not limited to, buildings; patios, decks, sidewalks, driveways, pavement, parking areas, and driveways constructed of concrete or asphalt; artificial turf, compacted gravel, and hard-surfaced recreational areas (e.g., tennis courts).
2. Pervious surface: a surface that allows water to percolate into the underlying soil. Pervious surfaces include natural forest, and gardens planted with trees, shrubs, and herbaceous plants.
3. Semi-pervious surface: a surface that partially allows water to percolate into the underlying soil. Semi-pervious surfaces include vegetated roofs, permeable paving, and porches and decks erected on pier foundations that partially maintain the covered surface's water permeability.

[Note: renumber the defined terms that follow #3.]

Response: Thank you for your detailed suggestions. The text has been revised to include a definition of semi-pervious as suggested. The text has also been revised to clarify that the gross yard area for the rules is the pervious gross yard area, i.e., the area not covered by impervious surfaces.

Member Comments for Proposed Rules on Impervious Surfaces, Run-off Capture and Control Requirements

Attachment #5

Member Comments

re: Proposed Rules

re: Impervious Surfaces and Run-off Capture and Control Requirements

16 May 2022

1. Consider combining #4 and #5 to read:

The construction of any of the capture and/or control measures described in Sections 5-7 below shall require a Type II permit. The permit application is described in Section X.C of this Handbook. If the construction of any of the capture and/or control measures described in Sections 5-7 below are proposed as part of a proposed exterior alteration, improvement, or addition, the permit application for these measures shall be included as part of the permit application for the proposed exterior alteration, improvement, or addition.

Response: Because additional text was added in response to another member comment, #4 and #5 were not combined.

2. Descriptions and illustrations of raingarden and dry well construction and function are excellent.

Response: Thank you for your comment.