

MINNEHAHA CREEK WATERSHED DISTRICT

Technical Advisory Committee

April 9th, 2009

2:00 PM – 4:00 PM

**Minnehaha Creek Watershed District
18202 Minnetonka Blvd.
Deephaven, MN 55391**

AGENDA

1. Stormwater Management on Redeveloping Sites
 - a. Recommendations for permit threshold.
 - i. Tear down –rebuild
 - ii. Negligible additions of impervious surface?
 - iii. Substantial additions of impervious surface?
 - b. Discuss feasibility as it relates to implementing volume control on redevelopment

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Summary of April 2nd 2009

Committee Members Present:

Lois Eberhart (Mpls), Pat Byrne (Mpls), Kristin Asher (Richfield), Kristen Larson (Carver Co.), John Bradford (Hopkins), Tony Brough (HCES), Brent Lindgren (Hennepin Co. Design), Jesse Struve (Edina), James Landini (Shorewood), Cara Geheren (Victoria).

MCWD Managers Present: None

MCWD Staff Present: James Wisker

Introduction:

The meeting began with a review of the March 26th Meeting Summary. Jesse Struve requested clarification to the last paragraph of the summary. These changes were made and are reflected in the revised March 26th Meeting Summary.

James Wisker introduced a document from the City of Minnetonka's design manual: "Table AppA-1. Best Management Practices for Stormwater Volume Control Criteria"

Lois Eberhart requested clarification on how regional solutions would be handled in the rule and if the TAC needed to include regional solutions in the review of abstraction alternatives.

Kristin Asher recommended that regional solutions do not need to be detailed within the rule language provided that there is an option available that allows cities to pursue regional solutions with MCWD staff and the Board.

John Bradford agreed with this approach.

James Wisker reminded the group that the TAC Subcommittee was charged with reviewing and recommending framework for regional solutions and that Mike Eastling and John Bradford had volunteered to produce language and recommendations to the TAC at a future meeting.

Kristin Asher mentioned that work had already begun on this topic and the Lois would be welcome to join to discussion between Richfield and Hopkins.

Lois Eberhart expressed interest in working with the other two communities on regional recommendations and commented that there needs to be flexibility built into how regional solutions are applied within Minneapolis since redevelopment is not concentrated within specific areas of the City.

James Wisker sought additional comments on regional solutions before moving on to discuss expanding the list of alternative abstraction options the TAC would like the District to quantify the credit that may be applied to each alternative.

“Table AppA-1. BMP’s for Stormwater Volume Control Criteria” from the City of Minnetonka, included:

Rain gardens, surface infiltration, subsurface infiltration, pervious pavement, rain barrels, cisterns, irrigation/reuse, green roof/roof gardens, rooftop disconnect credit, non-rooftop disconnect credit, grass channel credit, buffer credit, soil amendment credit, forest/prairie restoration credit, *Filtration techniques: bio-retention w/ underdrain, surface sand filter.

Lois Eberhart recommended that the list include “storage cells with trees” that could be used to evapotranspire runoff. Lois expressed some concern over how to address the issue of the length of time needed for trees to become established. Lois pointed out that larger volumes would be removed from a system with older more mature trees.

The group also recommended that the District take a look at gray water/reuse. James Wisker pointed out that, while this may be on the list, the District would likely not quantify it as a BMP since a design engineer would simply submit calculations to show how much volume control would be provided.

Tony Brough recommended that the BMP list include “no mow areas” such as wetland buffers that remain rough graded as they would generally remove a higher volume of runoff than an area that was smooth graded.

The TAC assumed that this BMP would vary but could be modeled by an applicant and that the District would not necessarily need to quantify.

Lois Eberhart asked if the District was targeting the volume control at new impervious surface or the total site.

James Wisker commented that this was ultimately a decision to be made by the Board, but that based on previous conversations with the TAC and review of other metro wide volume regulations, the rule would probably target new hard cover.

Lois asked the group if cities were currently providing credit for disconnecting impervious surface as a BMP. While no other cities present acknowledged such a policy, it was noted that the Minnetonka list of BMP’s included a credit for this type of proposal.

Jesse Struve commented that it would be difficult to assume a specific amount of volume control and would be equally difficult to enforce.

James Wisker sought additional suggestions for the BMP list and finding none, moved the discussion on to the minimum threshold for a single family subdivision permit.

Tony Brough commented that 3 houses on a ¼ acre lot should not require a stormwater management permit and that the watershed should focus its regulation based on parcel size or the number of subdivided parcels.

James Wisker commented that based on a review of other watershed volume regulations, there were two recurring approaches: triggered by parcel size or by number of parcels.

Cara Geheren recognized using parcel size makes the most sense where watershed characteristics are uniform, which they are not in MCWD.

John Bradford recommended that the rule focus on total acreage or a minimum acreage of impervious surface, below which the impacts were minimal.

Cara Geheren mentioned that a threshold of impervious surface may work and referenced a development in Victoria that was not subject to District water quality standards based on its density, despite creating new impervious cover.

James Wisker indicated to the group that the MPCA regulates based on 1 acre of new hardcover and that this threshold would be viewed as too high by the District.

John Bradford agreed that 1 acre of new impervious surface was significant and that regulation should focus on a smaller threshold.

Tony Brough commented that if roads were not a part of the development in Victoria previously referenced, perhaps a permit should not have been required based on the potential for impact.

John Bradford presented a hypothetical situation of either a 20,000 square foot home on five acres vs. 4-5 homes totaling 20,000 square feet on five acres. He indicated that based on the current rule, the single family home would not require a permit despite the level of impact.

Tony Brough recommended that the distance to a water resource should also be incorporated into the rule.

Lois Eberhart disagreed with this assessment based on the issues associated with storm sewer connectivity to water resources.

John Bradford outlined the possibility of basing the rule on two criteria: square feet of impervious and the percentage of the lot occupied.

Tony Brough reiterated that he would recommend basing the rule on parcel size and not hardcover. This was discussed and the majority of the group felt that parcel size alone did not reflect all of the variables that should be included. Some members of the group felt that the acreage of impervious surface was the best approach.

Kristin Asher offered that the rule could be crafted around the parcel size and percentage hardcover.

James Wisker sought clarification and rephrased the suggestion: Parcels greater than 1 acre in size and at least 20% hardcover would require a permit.

Cara Geheren commented that this approach may be viable but that it should be ran past city planners to determine what percentage of developments it could potentially target as it would differ by city.

John Bradford approved of this general approach but commented that the final numbers may need revising. He suggested emailing all the communities involved in the rulemaking process and asking for feedback.

Tony Brough asked if a subdivision on paper alone should trigger the rule.

After some discussion, James Wisker indicated that this may require a conversation with legal counsel.

Cara Geheren said that she would like to get the developers opinion on this general approach.

Lois Eberhart expressed her opinion that a 1 acre parcel size would be too low and be overly burdensome. Cara Geheren and John Bradford agreed.

James Wisker reiterated the approach of basing the rule for single family subdivisions on parcel size and percentage hardcover and asked if there was anyone who disagreed with this approach. No one disagreed with using this approach and James expressed that this language would be sent out to local communities for more feedback.

The TAC then moved on to discuss how to best define feasibility with respect to implementing volume control on a site.

Cara Geheren commented that Victoria would want to avoid overly aggressive sequencing language that may force people to incur large costs simply to demonstrate through engineering that infiltration was not feasible on site due to poor soils. She indicated that this may drive developers away from Victoria.

Kristen Ashed noted that by using “abstraction”, options would not be limited to infiltration and that this provided flexibility in the rule.

Lois Eberhart responded that the other options aside from infiltration were not as reliable, readily quantifiable and may not provide the same water quality benefits. Lois continued, that the District should avoid allowing applicants to mix and match an assortment of volume control practices on site and expressed concern that by doing so, less water quality improvements would be made.

John Bradford recommended that in Type D and C soils the rule should focus primarily on having applicants meet the water quality standards as this would provide the District with the most bang for the buck.

James Wisker reminded the TAC that the first item on the agenda was to identify alternatives volume control strategies that could be incorporated into the rule and that the feasibility discussion should not focus solely on infiltration but feasibility of volume control.

John Bradford noted that feasibility may be broken into two categories: physical barriers to feasibility and cost feasibility. Physical barriers may include proximity to bedrock, groundwater, wellheads, poor soils etc. Cost feasibility would likely be considered when analyzing feasibility of alternative volume control practices.

Cara Geheren agreed that this may be a valid approach given that the alternative volume control BMP's would likely cost more to implement.

Tony Brough asked if the cost feasibility could be based on a percentage cost of the development.

Jesse Struve responded that Capitol Region placed a cap on cost per unit of hardcover. Example: \$30,000.00 per acre of hardcover could be spent on volume control before being determined infeasible.

Lois questioned the idea of a stormwater “buy-out” option.

John Bradford commented that this approach could work if the money spent on buying out were to be allocated to cities stormwater programs.

Tony Brough objected to this approach being used on linear projects as it would likely result in buy outs on most projects which would increase cost to the public.

Lois agreed that public agencies should not be required to buy out of the rule if the option exists.

James Wisker synthesized the discussion at this point and asked if there were any additional comments. He mentioned that the issue of feasibility would likely be a discussion topic on each issue: linear projects, redevelopment etc. and that the group should be prepared to make further recommendations on this issue at future meetings.

The TAC adjourned at 4:40 PM.