Dealing with Impervious Cover Removal

WATERSHED TECHNICAL WORKGROUP

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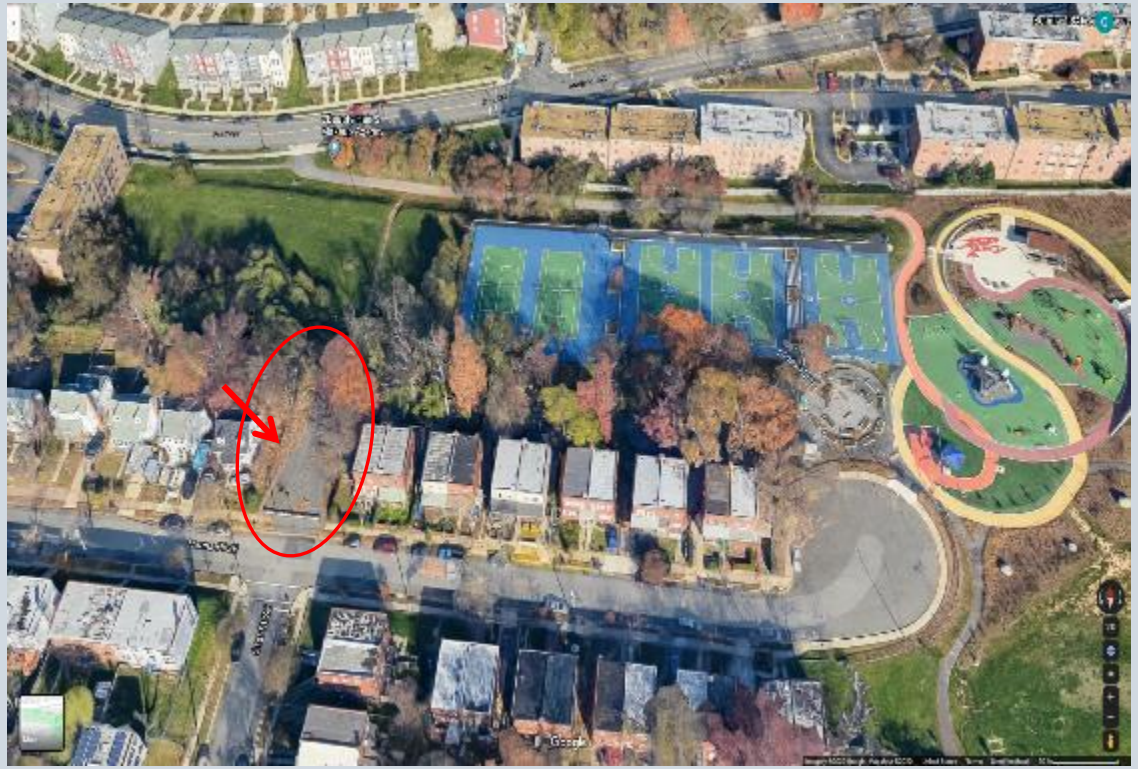
Background

Impervious Cover Removal (Impervious Surface Reduction)

- Already Existed as a BMP in CAST
- Land Use Change from Turf to Impervious
- About 700 acres reported to date

Impervious Cover Disconnection

- 2017 Expert Panel report
- Has a default, but can be reported as Runoff Reduction
- About 100 acres reported to date (all in MD)



What the Memo Does

- Provides a history of the different ways ICR has been reported
- Clarifies the differences between when to report ICR, ICD, and Urban Filter Strips
- Recommends transition from LU change BMP to efficiency BMP
- Clarifies back-out with high res land use data (consistent with Tree BMPs)
- Recommends fix to CAST

The Definitions

Impervious Cover Removal: Replacing impervious surfaces with pervious surfaces that have been de-compacted and amended to promote infiltration.

Impervious Cover Disconnection: Disconnecting existing impervious area runoff from stormwater drainage systems, such as directing rooftops and/or on-lot impervious surfaces to pervious areas.

Basic Qualifying Conditions

ICR:

1. New pervious surface should be de-compacted and amended over a minimum depth of 3 inches to promote infiltration and reduce runoff.
2. New pervious surface should be maintained in a turfgrass or meadow condition. The area should generally not be converted into a high traffic area prone to compaction, such as an athletic field.

ICD:

https://www.chesapeakebay.net/documents/Impervious_Disconnection_Expert_Panel_Report_WQGIT_approved_December_2016.pdf

So many BMPs

The Reductions

Table 4. Nutrient and Sediment Reductions for ICR[1]			
	TN	TP	TSS
ICR	36%	0%	61%
[1]See Appendix A for detailed methodology.			

What's up with TP

Target Land class	Land Use	Acres	Loading Rate Ratio	Loading Rate (pounds per acre per year)
Developed	CSS Buildings and Other	39580	0.83	0.69
	CSS Construction	1516	3.89	3.21
	CSS Roads	10849	1.04	0.86
	CSS Tree Canopy over Impervious	4466	0.91	0.75
	CSS Tree Canopy over Turfgrass	15934	0.79	0.65
	CSS Turf Grass	29800	1.04	0.86
	MS4 Buildings and Other	164843	0.83	0.69
	MS4 Construction	65955	3.89	3.21
	MS4 Roads	59965	1.04	0.86
	MS4 Tree Canopy over Impervious	24896	0.91	0.75
	MS4 Tree Canopy over Turfgrass	102715	0.79	0.65
	MS4 Turf Grass	311048	1.04	0.86
	Non-Regulated Buildings and Other	295033	0.83	0.69
	Non-Regulated Roads	211292	1.04	0.83
	Non-Regulated Tree Canopy over Impervious	78512	0.91	0.75
	Non-Regulated Tree Canopy over Turfgrass	255214	0.79	0.65

Reporting

Proposed ICR Technical Reporting Requirements:

- *Practice Name*: Impervious Cover Removal
- *Measurement Name:* Impervious Acres (Acres)
- *Location of the BMP:* Qualifying NEIEN Geographies, including Lat/Long, or County, or Hydrologic Unit Code (HUC12, HUC 10, HUC8, HUC6, HUC4), or State
- *Date of implementation:* Year practice was installed
- *Previous Land Uses*: Roads; Buildings and Other Impervious
- *Credit Duration*: 5 years

The suggested BMP credit duration is 5 years. Once new high-resolution imagery is updated in CAST, changes to the aerial extent of impervious cover will be captured through these data rather than annual BMP submissions. Thereafter, the credit will be reflected in the land use