IMA Q/As from Social Media

By Greg Sykes (greg@grsykes.com)

Earlier this year, a couple of neighbors posted some excellent questions and comments on a community Facebook site. With Royal Lake getting dredged and erosion fresh on folks' mind, now is a great time to review this thread. The referenced images are included in Figure 1.

Q: What is an IMA site?
A: It stands for Invasive Management Area, a Fairfax County Park Authority (FCPA) program aimed at eradicating non-native invasive weeds from parkland and establishing a healthy native ecosystem. To learn more about how this program pertains specifically to parks in the Royal Lake watershed, please check out http://www.grsykes.com/ima/.

Comment: While I think the IMA efforts are well intentioned, I can't understand why there is no concern for the excessive erosion that is resulting from this. A simple tour around Lake Royal should make this evident to even the most casual observer.

A: Thank you so much for bringing up water quality! IMA is one of the many steps the county uses to improve water and reduce erosion. Non-native invasive species monocultures do far less to curb erosion than a complex plant community with varying roots. Furthermore, IMA's efforts to remove tree-killing weeds, such as oriental bittersweet and wisteria, help keep trees healthy and their soil-retaining roots strong. Since I work in a Resource Protection Area (RPA), I am granted an additional permit enabling work near waterways. As such, we strategically remove weeds to reduce erosion, sometimes leaving less offensive species in place until native plants begin to fill in. Erosion is a complicated problem; parks can help buffer stormwater runoff, but all of the impervious surfaces (roads, roofs) and poor absorbing land (lawns) greatly contribute to erosion. Several of my articles address how residents can help reduce erosion—in fact, my Water Conservation page, loaded with additional links and reading material, can be found here: http://www.grsykes.com/water-conservation/.

Figure 1. The links provided in the third answer lead to these previously published images. One IMA habitat restoration pull-and-plant site with a seep is seen here in "before" (A) and "2.5-years-after" (B) photographs. Image C shows a workday where foreground volunteers are planting natives while people in back load a flat with newly removed weeds.

Q: So you are immediately replacing the groundcover you remove with something you consider native?
A: We handle each site differently. In some cases, yes, it was a "pull then

plant" session (see the before and after pictures on my IMA page, http://www.grsykes.com/ima/, which was a Saturday pull and Sunday plant; and the image on http://www.grsykes.com/ima-workdays/, where you see people removing weeds and planting natives). In other sites, especially ones requiring multiple workdays, we won't plant until most of the pulling is done. In areas where there is plenty of native vegetation, we let the land heal naturally. In all cases, we monitor the progress over the years. The natives FCPA plants are species naturally occurring in Fairfax County and, in most cases, are grown from plant stock originating from within Fairfax.

Bonus material for this article: Figure 2's scene underscores the severe erosion problems along some local streams. This image of Rabbit Branch was photographed near Crooked Creek Park's northernmost border. No IMA workdays were ever hosted here or upstream of this location. In this case, major contributors to this massive deterioration are impervious surfaces that rushed stormwater down storm drains and into the streams without the earth having a chance to absorb the water. These surfaces include acres of low absorptive lawns and impermeable roadways, parking lots, driveways, and rooftops from George Mason University and sub-developments like Kingsberry, George Mason Forest, Roberts Square, and Kings Park West.

Thank you for your questions and comments! Keep them coming!

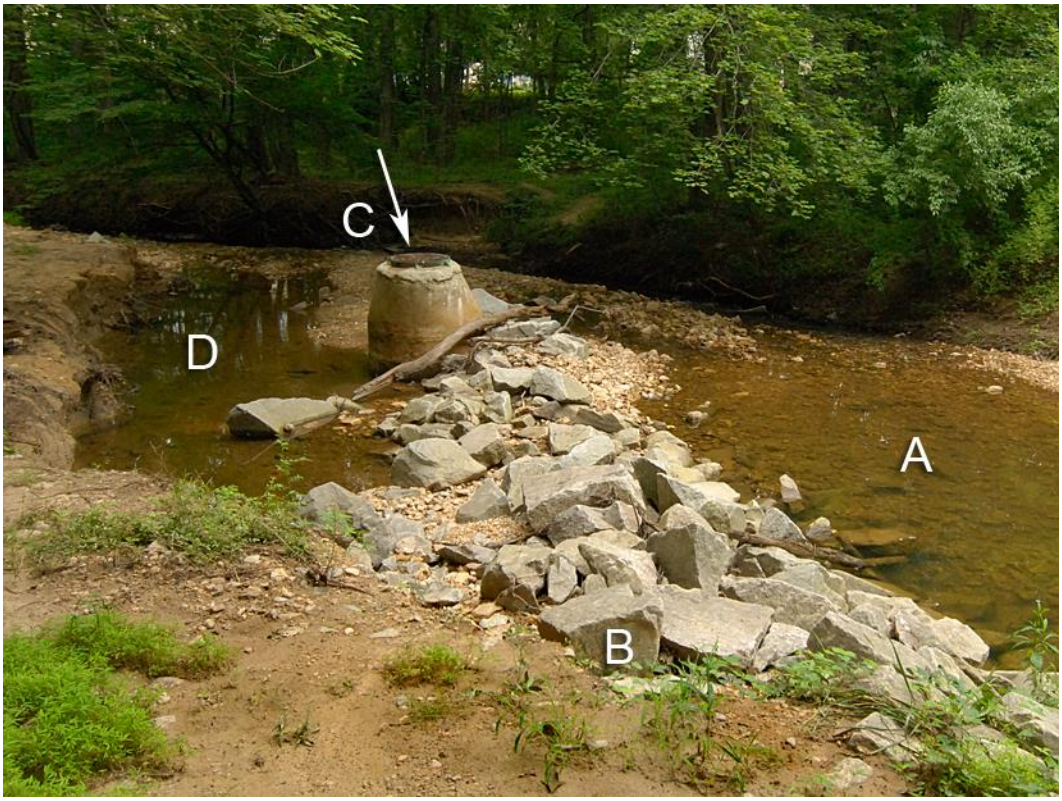

Figure 2. Rabbit Branch (A) flows by a buried sewer line. A riprap cover (B) was supposed to protect the manhole cone (C, with arrow) and immediate shoreline. However, powerful stormwater gushed into the creek and cut past the reinforced bank, exposed the cone, washed the soil downstream, and shifted the stream's course (D).

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