



Environmental Management

National Aeronautics and Space Administration



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Visit us on the web for more information about Goddard's environmental programs and other outreach bulletins at

<http://code250.gsfc.nasa.gov/outreach.cfm>

The State of Our Streams

By Regina Wilbide
Code 250

Stream Health

Brooks and streams may babble, but they can't tell us how they're feeling. Are our waterways doing poorly? Are they in need of care? Healthy streams are as close as possible to their natural state and serve many ecological functions. Streams that have been disturbed by run-off due to urban development may not carry out their ecological functions as well. The table below shows qualities exhibited by healthy streams and symptoms of ones that may be considered unhealthy.

Stream Characteristics		
	Healthy Streams	Unhealthy Streams
Water	Clear and odorless	Cloudy and smelly
Temp	Cooler; shaded by overhanging trees	Warmer from run-off or lack of shade
Flow	Changes with season and rain events	Run-off water greatly increases the flow
pH	Not too acidic, not too alkaline	pH is outside of the neutral range
Sediment	Small amounts eroded from stream banks	Run-off causes extreme erosion and excess sediment
Wildlife	Diverse (fish, insects, amphibians)	Organisms with pH and temperature tolerance

The stream doctors are in!

In 1983, the Maryland Department of Natural Resources (DNR) created the Maryland Biological Stream Survey (MBSS) to characterize the health of Maryland's 10,000 miles of freshwater streams.

The MBSS selects monitoring sites throughout the state to collect data about the physical (stream structure, temperature), chemical (water quality), and biological (fish and insect species) characteristics of streams. They use the data to create an



MBSS surveys fish species at a monitoring site.



overall assessment of each stream's health. The MBSS has surveyed more than 3,400 stream sites across the state. The Stream Waders volunteer program has also helped provide stream data for more than 6,000 additional sites. Maryland has integrated this information into an interactive map. You can use it to find out if your local streams are healthy: <http://www.streamhealth.maryland.gov/map.asp>.

How healthy are the streams in my neck of the woods?

The 'Stream Health' interactive map shows surveyed streams across the state of Maryland. You can use this map to view a variety of layers that tell you a stream's condition and what activities nearby could be affecting its health. For example, the "Forest Buffer" layer can show how the tree cover can improve water conditions for surrounding streams. The "Stream Reaches" layer displays the surveyed stream's rating: streams in good health are shown in green, fair streams are in yellow, and poor streams are in red. If you view the "MBSS Sites" or "Stream Waders Sites," you can see when a stream was surveyed and what data were collected. You can even see what kinds of critters are swimming in your local waterways!

How we're keeping streams healthy!

Some of the streams in your neighborhoods may not be at their healthiest, but there are ways you can improve the health of nearby streams by reducing run-off around your own home!

- Reduce the amount of paved areas whenever possible. If you have to pave a driveway or patio, use porous surfaces like gravel or pavers to improve infiltration of rain water.
- Plant trees and shrubs along stream banks; they provide shade to streams, help absorb surface water run-off, and serve as a habitat for critters.
- Reduce polluted run-off by making sure your home's downspouts drain onto grass, gardens, or gravel rather than paved driveways or sidewalks.



Streams surveyed around NASA GSFC. Health ratings are shown for stream reaches and watersheds.

Visit the websites below for more information on stream health and volunteer opportunities:

<http://www.chesapeakebay.net/takeaction/howtotips>

<http://www.streamhealth.maryland.gov/about.asp>

<http://www.streamhealth.maryland.gov/faq.asp>

http://www.dnr.state.md.us/education/pdfs/big_healthy.pdf





Freecycle@Work – New Look, Same Great Program!

By Janine Pollack
Code 250

What do you get when you combine the Sequester and the end of the fiscal year? No, it's not a joke - you may get something, but it's not money. Do you need office supplies, but have no money? Lucky for you there's Freecycle@Work (F@W)!

F@W is a way for employees to give office items they no longer want or need to their co-workers. These exchanges keep items that would otherwise go into the trash, out of the landfill and into the hands of those who need them. It also saves money by recirculating supplies instead of purchasing new ones. In these tough times who couldn't use a little help in saving those precious dollars?

If you are not already familiar with NASA's F@W program, now is the time to learn all about its recent changes. F@W entered the scene in late 2010 as a tiny pilot program at GSFC. Since then it has grown to an Agency-wide initiative with several hundred users.

Of course, just as things were moving along swimmingly, we got a wrench in the system. The commercial company that hosted the free F@W database application figured out that "free" wasn't

profitable and dropped its support. That left us scrambling to identify a worthy replacement. After two months of finessing an internal web application, we have a replacement system up and running and ready for your participation!



If you're familiar with the old site, you'll notice a few changes on the new site. However, the key functionality is still there and the new site's simplicity may even be an improvement. If you're new to F@W, you're in for a treat and won't be disappointed with what awaits you. Become an active member of the NASA Freecycle community by listing items that are cluttering your office space and passing them along to someone else who will put them to good use. Join the hundreds of NASA employees already visiting the site and exchanging office supplies!

Eliminate the middle man and manage all interactions through a website with a few easy steps.

- Step 1: The person with the item posts it on the website.**
- Step 2: The person who wants that item responds to that post.**
- Step 3: The item is exchanged directly between the two employees.**
- Step 4: Everyone is happy.**

For more information about NASA's F@W, visit <http://freecycle.nasa.gov/index.html> or contact Janine Pollack (Janine.N.Pollack@nasa.gov).



Wild Turkeys at Goddard

By Darlene Squibb

Code 250

New alien species on center?

Nah, it's just Wild Turkey. Though it's new for us on the main site, Wild turkeys have occupied Goddard's satellite areas 200, 300, and 400 for many years. Now it seems our open fields and thick vegetated woodlots have enticed them to expand their reach. Don't worry: we have been assured by wildlife experts that they almost never become a nuisance.



Goddard's new mascot?

For more information on wild turkeys in Maryland, visit:

http://dnr.maryland.gov/wildlife/Plants_Wildlife/Wild_Turkey.asp



Stay Tuned for America Recycles Day at Goddard!

Stay tuned and save the date: Goddard will be celebrating America Recycles Day on November 5, 2013 around lunch core hours in the Building 32 lobby area. This year we're planning a book exchange. Bring one to trade or just come browse what others have brought to share Check <http://recycle.gsfc.nasa.gov> for more information.

