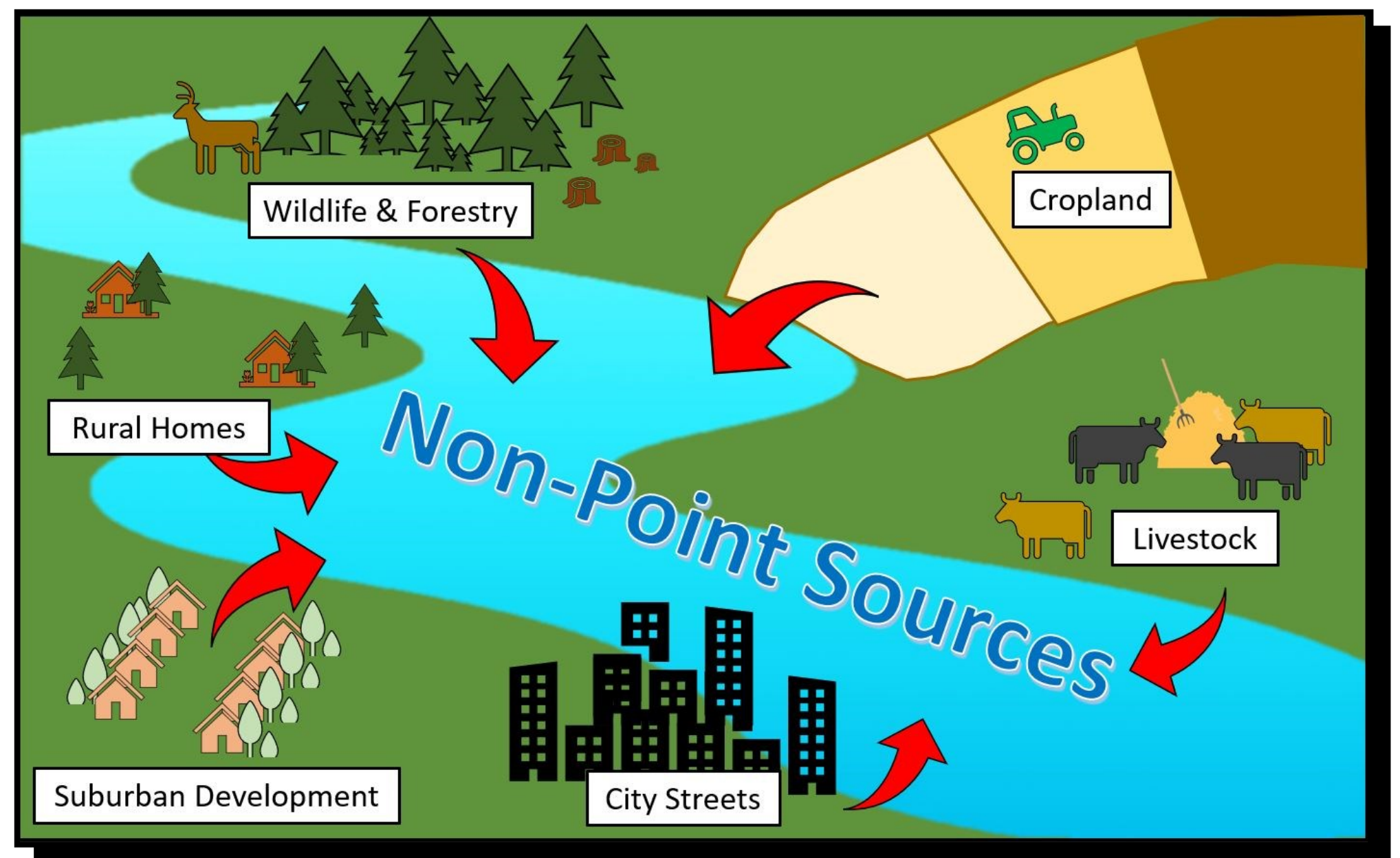


# Nutrient Management

Here in Virginia, we have been striving to improve water quality for decades and restoring the Chesapeake Bay has been a major priority at the local, state, and federal levels. A tricky problem to address in this work has been the goal of reducing non-point-source pollution. This type of pollution does not have an easily identifiable source and can happen in any area, such as a residential yard, a sports field, or a farm. Because it is difficult to identify the source, the best way to deal with non-point-source pollution is to address it *before* it becomes a problem.



Graphic adapted from materials created and owned by the National Oceanic and Atmospheric Administration



Above, photo courtesy of VIMS: York River Bloom. An algal bloom colors the waters of the York River near Sarah's Creek in lower Chesapeake Bay. Aerial photograph taken on August 22, 2013. Photo by Dr. Wolfgang Vogelbein

Right: Chesapeake Bay watershed (blue line) and States that have territory in the watershed (tan).



One way this is done in the Chesapeake Bay watershed is through the regulation of nitrogen and phosphorus, which are essential parts of plant fertilizers. When excessive amounts of nitrogen and phosphorus get into waterways, they can cause a variety of issues within the local ecosystem, like increased algae growth, dead-zones, and fish kills. We can't stop using fertilizers entirely, we need them to grow the food we eat and to keep grass and other vegetation healthy to stabilize the soil.

Virginia created a nutrient management program to help address non-point-source pollution from fertilizer, where certified planners can help homeowners, farmers, and property managers reduce the chances of non-point-source pollution happening when they use fertilizers. Fertilizer use plans are written with the **4 Rs** in mind: the **right amount**, the **right place**, the **right time**, and the **right type** of fertilizer for the plants to be grown and cared for.



Top: Bob Waring is a Nutrient Management Planner for the Dept. of Conservation and Recreation for Agricultural Operations. Bottom Right: Bob Winters is a Nutrient Management Planner at the Colonial SWCD for turf grass management. Bottom Left: A soil sample box use by VA Cooperative Ext. for nutrient analysis.

*The Colonial Soil & Water Conservation District has several certified nutrient management planners on staff and are capable of writing residential and agricultural nutrient management plans to suit the needs of our constituents. We want to work with you to help achieve your goals and to protect our waterways!*