FOOLING OURSELVES

Voluntary Programs Fail to Clean Up Dirty Water

EWG
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CONTENT

ABOUT EWG

The Environmental Working Group is the nation's most effective environmental health research and advocacy organization. Our mission is to conduct original, game-changing research that inspires people, businesses and governments to take action to protect human health and the environment. With your help – and with the help of hundreds of organizations with whom we partner – we are creating a healthier and cleaner environment for the next generation and beyond.

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EXECUTIVE SUMMARY

Drinking water, lakes and rivers in Iowa and across the Corn Belt are in serious trouble because of polluted farm runoff.

To tackle the problem, for decades we've taken the approach favored by agricultural interests – making federal tax dollars available for conservation practices that curb runoff, encouraging farmers to adopt those practices, then hoping enough of them volunteer to do the right thing. In Iowa alone, since 2005 the U.S. Department of Agriculture has spent $3 billion on programs to help farmers to farm in more environmentally friendly ways.

But that approach has a fatal flaw: farmers who voluntarily *start* conservation practices can just as easily *stop*.

And that's exactly what's happening in eight key Iowa watersheds, an EWG investigation found. If what we found is true statewide and throughout the Corn Belt, it's no wonder thewater is still dirty.

EWG used aerial imagery from USDA's National Agriculture Imagery Program to track what happened between 2011 and 2014 with two simple but important practices – stream buffers and grassed waterways – in eight watersheds prioritized in the Iowa Nutrient Reduction Strategy. In that period, some landowners in those watersheds started following practices to control runoff, but others stopped. In the end there was no lasting gain in protection and no or miniscule progress in reducing runoff.

Between 2011 and 2014, along 1,020 miles of waterways, there was a net loss of 74 acres of grass planted to protect stream banks and filter out pollutants. Landowners added 45 acres of new stream buffer, but during the same period removed 119 acres of existing buffer within 75 feet of the shoreline.

The trend was the same with flow lines, the low-lying places where temporary gullies form when too much water runs off farm fields. Between 2011 and 2014, the eight watersheds gained 26 miles of newly protected flow lines, but almost all of that progress was wiped out by the disappearance of 21 miles of protected lines. Net gain: a measly five miles.

There was a net loss of buffer between 2011 and 2014

Source: USDA – NAIP 2011

Source: USDA – NAIP 2014

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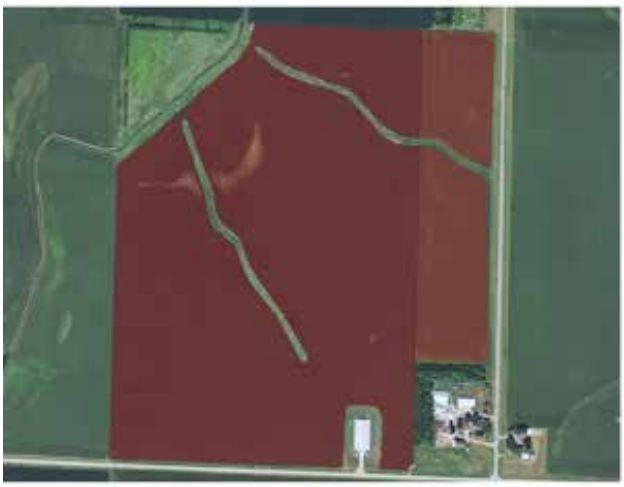
Losses wipe out most of the gain in preventing gully erosion.



Source: USDA – NAIP 2011

Source: USDA – NAIP 2014

Government agencies and farm organizations point to new acres enrolled in this or that conservation practice as evidence of progress. But counting gains and ignoring losses is meaningless and misleading – it's like trying to balance your checkbook by looking at deposits but not withdrawals. Monitoring what is actually happening on farmland and in the water is the only way to know for sure if progress is being made.

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We are fooling ourselves by clinging to the hope that voluntary conservation measures will clean up Iowa's water. Instead we need to set standards that restrict the most damaging activities, which can often be solved by simple and conventional practices. To start, we should require landowners to meet four basic standards of care:

Keep 50 feet of vegetation between cropland and waterways to filter polluted runoff.

Heal or prevent temporary gullies, which are direct pipelines delivering polluted runoff to streams and lakes.

Manage access of livestock to streams to prevent battered stream banks that collapse, fouling waterways.

Don't spread manure on frozen or snow-covered fields.

Not all landowners would be affected by the standards – in most cases only one or two of the standards would apply to an individual farm operation. County soil and water conservation districts should be responsible for providing landowners with the technical help they need to meet the standards. Taxpayers should provide financial help to landowners who can show that meeting the standards would be a serious financial hardship.

These standards alone will not get us all the way to clean water. But throwing more money at the failed voluntary approach promoted by agricultural interests will get us nowhere. These basic standards are a solid foundation on which to build far more effective voluntary programs that work better for farmers, taxpayers and waterways. Combining common-sense standards and investing tax dollars to get additional practices in the right places is the smart path to clean water in Iowa and the Corn Belt.

INTRODUCTION

The fouling of Iowa's water by farm runoff is reaching levels impossible to ignore. The Des Moines Water Works got tired of waiting for state officials and landowners to take action and is suing three Iowa counties to force them to step up and cut nitrogen pollution from fertilizers that threatens the drinking water of 500,000 Iowans.

Last summer The Des Moines Register called Iowa's water quality a disgrace as toxic algal blooms forced closure of a record number of state park beaches. In an editorial, the Register explained: "Swimming in these waters can lead to respiratory problems, skin reactions, chest pain and even liver damage. For dogs, these waters can be fatal." Fertilizer and manure from farm fields is the major cause of toxic algal blooms.

But it's not just Iowa's problem. In Ohio, Toledo was forced to shut down its drinking water supply when toxic algae infested Lake Erie. Regularly occurring algal blooms are polluting drinking water across the heart of the Corn Belt and threatening Minnesota's $13 billion tourist industry.

Agricultural interests and state officials routinely argue that waiting for landowners to volunteer to take action is the best way to clean up the water. But since 2005, USDA has spent approximately $3 billion just in Iowa to encourage farmers to step up. Yet there is no evidence water quality is improving in Iowa or across the Corn Belt.

Policy makers should ask proponents of the voluntary approach two questions:

1. **After all this time and money, why don't we see results?**
2. **Is this really a reliable way to clean up our waterways and protect our drinking water?**

CONSERVATION COMES AND GOES - POLLUTION REMAINS

EWG went looking for answers by examining eight Iowa watersheds designated in 2013 as priorities in the Iowa Nutrient Reduction Strategy. We used aerial imagery from USDA's National Agricultural Imagery Program to track what happened in these watersheds between 2011 and 2014 with two simple, conventional practices to curb polluted farm runoff – riparian buffers and grassed waterways.

What we found is that a major reason we haven't seen more improvement is that conservation practices come and go. Landowners who voluntarily adopt conservation practices can stop at any time. For all the money spent to encourage stream protection practices, there's almost nothing gained or even some protection lost.

Protected Stream Banks

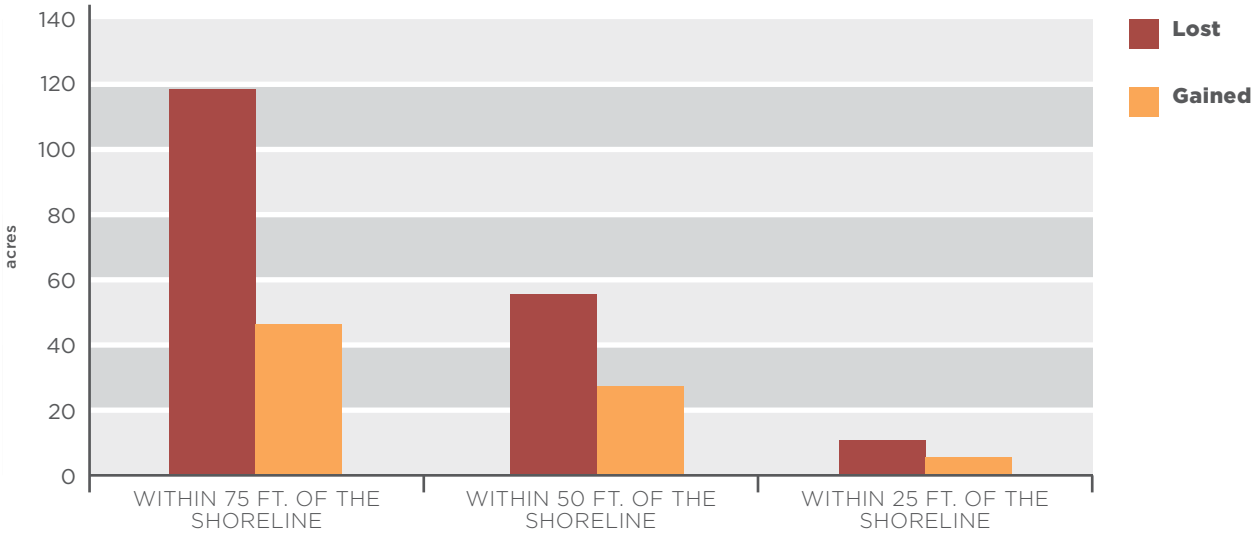
We investigated the loss and gain of acres planted to riparian buffers within 75, 50 and 25 feet of 1,020 miles of stream banks. From 2011 to 2014, the total gain was wiped out by losses of pre-existing buffer acres, regardless of the distance from the stream bank (Figure 1).

Within 75 feet of the bank there was a net loss of 74 acres: 45 acres gained, 119 acres lost.

Within 50 feet there was a net loss of 27 acres: 28 acres gained, 55 acres lost.

Within 25 feet there was a net loss of three acres: 7 acres gained, 10 acres lost.

FIGURE 1: LOSSES WIPED OUT GAINS IN PROTECTED STREAM BANKS



Only the Prairie Creek and the Floyd River watersheds eked out small net gains. The Turkey River, South Skunk River, Miller Creek and Eagle Creek watersheds suffered net losses in protected stream banks. In the Roberts Creek and Crooked Creek watersheds, there was no change in stream buffers between 2011 and 2014.

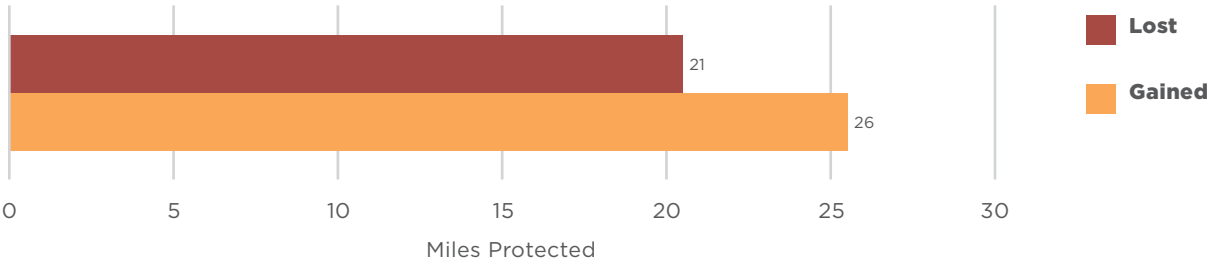
Adding insult to injury, of the buffer acres within 50 feet of streams that were lost in the period investigated, more than 80 percent were enrolled in the USDA's Conservation Reserve Program in 2008. Along with the stream protection that was lost, at least 10 years of investments by taxpayers – rental payments in exchange for adoption of conservation practices – were squandered.

Protected Flow Lines

We also checked more than 5,900 miles of flow lines – the low-lying places where temporary gullies form when too much water runs off farm fields – on 25,000 acres classified as agricultural land in the eight watersheds to determine if those vulnerable areas were protected by grass cover. We considered flow lines protected if they were covered by a grassed waterway on cultivated land or if they flowed across agricultural land planted in pasture or hay. Between 2011 and 2014 the eight watersheds gained 26 miles of newly protected flow lines, but lost 21 previously protected miles – a net gain of just five miles (Figure 2).

Five watersheds – Floyd River, Miller Creek, Prairie Creek, Roberts Creek and the South Skunk River – eked out a small net gain in protected flow lines. Crooked Creek, Eagle Creek and the Turkey River watersheds suffered a small net loss.

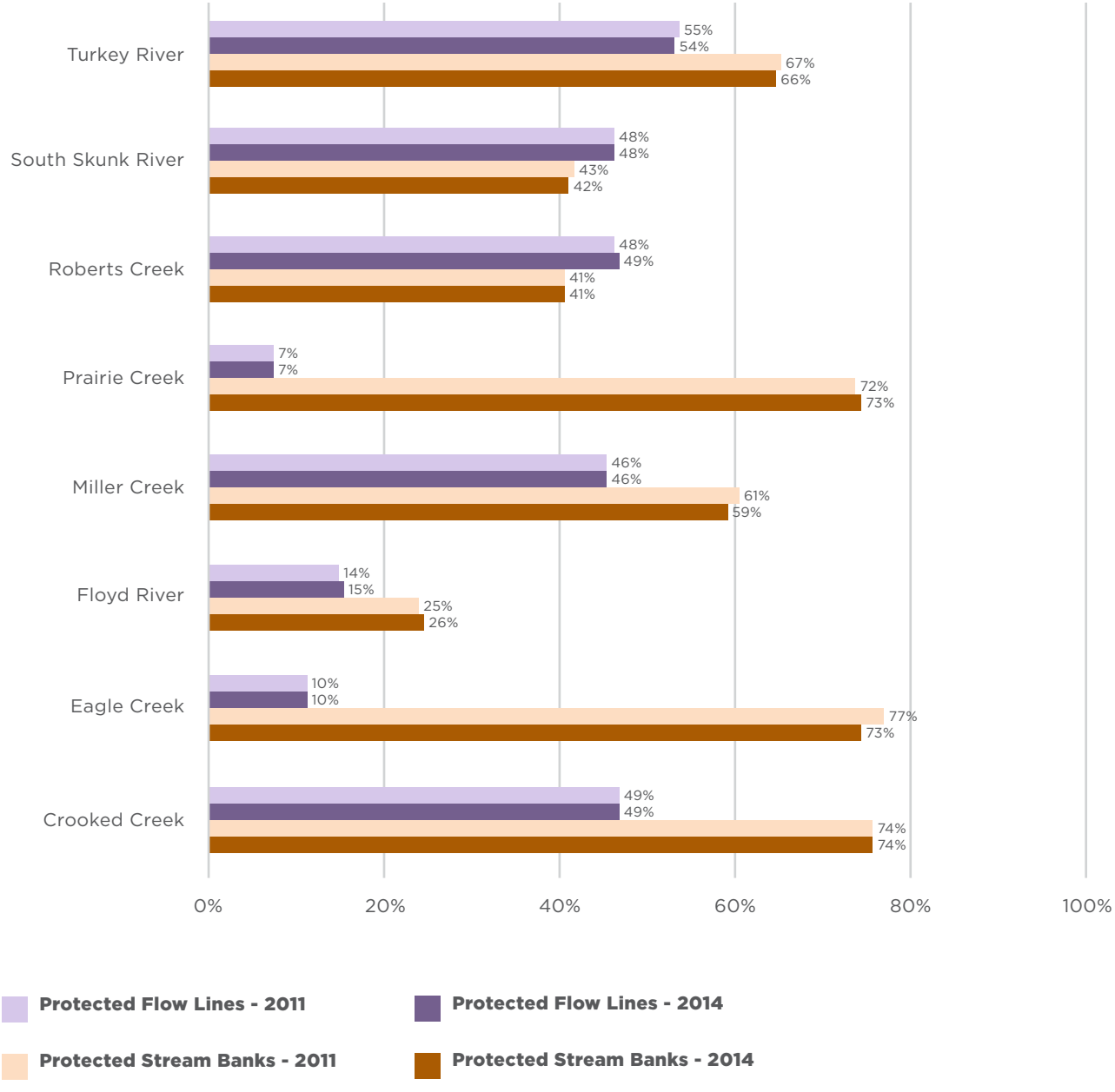
FIGURE 2: SMALL NET GAIN IN PROTECTED FLOW LINES



PROGRESS IS PAINFULLY SLOW

EWG's investigation reveals that if there is any progress in stream protection, at least as measured by these two important practices, it is painfully slow. In the four years between 2011 and 2014, progress would have been barely noticeable, even if losses hadn't erased most or all of the gains. If our results in these designated priority watersheds are representative of what is happening across Iowa, it should be no surprise that Iowa's water is still dirty.

FIGURE 3: PROGRESS IS PAINFULLY SLOW



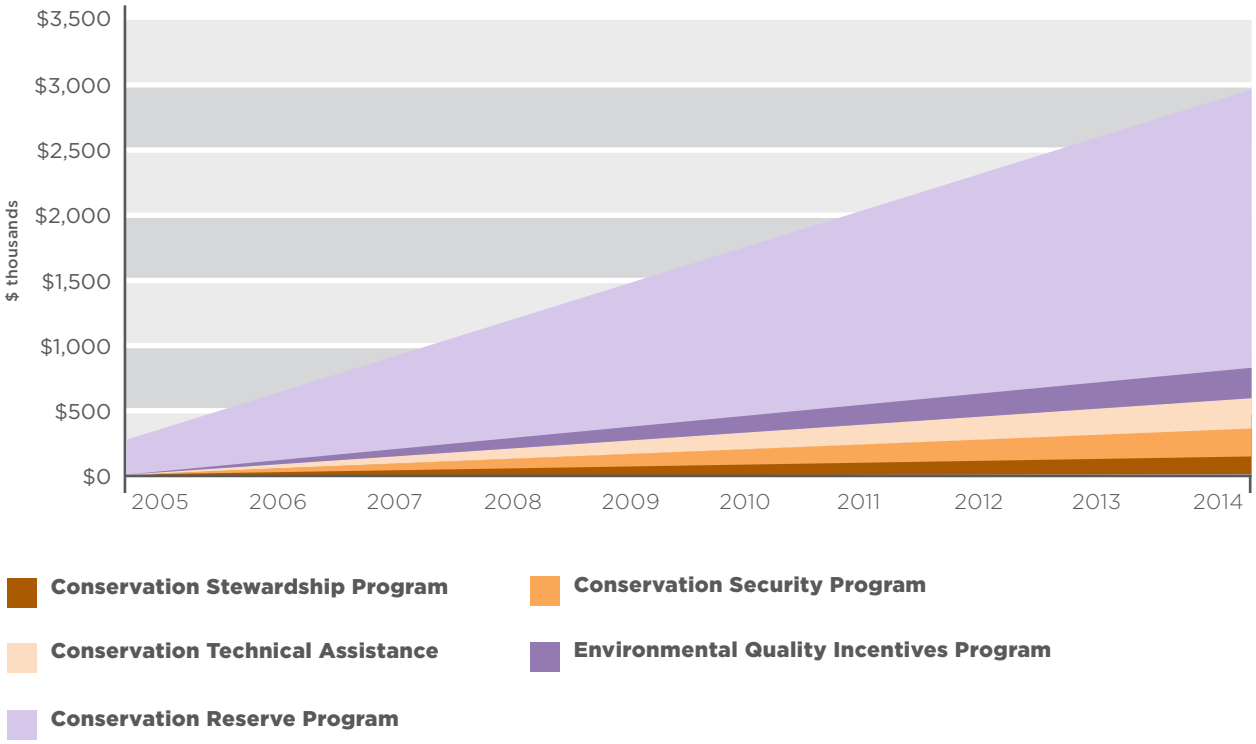
Clinging to the hope that waiting for, or paying, landowners to take measures to cut pollution will clean up Iowa's water is folly. Still, proponents of the voluntary-only approach imply that we only recently started encouraging landowners to take action and should be patient.

The truth is that taxpayers have been spending millions of dollars, year after year, to encourage landowners to get moving (Figure 4). Between 2005 and 2014, U.S. taxpayers spent $3 billion in Iowa through five USDA programs to pay landowners to farm in more environmentally friendly ways. From 2011 to 2014, U.S. taxpayers sent $1.3 billion to Iowa landowners alone.

Millions more were spent through programs administered by Iowa's Department of Natural Resources and Department of Agriculture and Land Stewardship. This spending dwarfs the $18.8 million in additional funding provided since 2013 to implement Iowa's Nutrient Reduction Strategy.

We have tried the voluntary approach to spur landowners to take the often-simple steps needed to clean up dirty water, save precious soil or improve fish and wildlife habitat. It doesn't work. Indeed, polluted runoff from farming operations has gotten worse. It's foolish to cling to a failed strategy and expect different results.

FIGURE 4: $3 BILLION IN CONSERVATION PAYMENTS TO FARMERS SINCE 2005



A BASIC STANDARD OF CARE

The inherent weaknesses of voluntary-only programs are well known:

Landowners who volunteer are often not those who most need to improve their operations.

Conservation practices favored by landowners are often not the most effective.

The political imperative for every landowner and every county to take a shot at the money defeats the effort to target resources where they are most needed.

This study reveals the biggest flaw in the voluntary-only approach: Landowners who voluntarily start conservation practices can also stop any time. As a result, the voluntary-only approach is not achieving the lasting improvement in farm practices needed to clean up Iowa and the nation's waterways.

What is desperately needed is a set of basic standards for the way landowners treat their land. Those standards should target the most damaging activities that often can be solved by simple, conventional conservation practices. **In Iowa and across the Corn Belt, these four standards would be a good start:**

1. Heal or prevent temporary gullies that are direct pipelines delivering polluted runoff to waterways.

Source: EWG.

2. Keep at least 50 feet of permanent vegetation between cropland and waterways to filter runoff from farm fields.

(Photo Courtesy of the Des Moines Register) Copyright Des Moines Register. Photo by Christopher Gannon. Register Photos. Used with Permission.

3. Control the access of livestock to waterways to minimize damage to streams.

Source: EWG.

4. End the application of manure to frozen, snow-covered or saturated ground.

Source: NRCS.

We could and should argue about if this is the right list of standards. Standards should be tailored to different landscapes and watersheds. But there must be standards and they must not be optional.

Not all landowners would be affected by the standards. In most cases only one or two of the standards would apply to an individual farm. In five Iowa counties, for example, we found that meeting a 50-foot riparian buffer standard would affect only 13 percent of the landowners in those counties. Seventy-one percent of the affected landowners could meet the standard by planting an acre or less of cropland in grass.

County soil and water conservation districts should be responsible for providing landowners with the technical help they need to meet the standards. Technical and financial help should be available to landowners who want to exceed the standards and especially to those working together to heal their local watershed.

Taxpayers should provide financial help to those landowners who can show that meeting one of more of the standards will impose a serious financial hardship.

Meeting just these standards will not get us all the way to clean water. But throwing more money at the same old, failed voluntary approach promoted by agricultural interests will get us nowhere.

The basic standards of care are a foundation to build more effective voluntary programs that work better for farmers, taxpayers and our waterways. Combining common-sense standards and investing tax dollars to get additional practices on the ground in the right places is the path to clean water.