
CONSERVATION COMPLIANCE

A RETROSPECTIVE... AND LOOK AHEAD



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America's farmers need a safety net, but so do our rich soil and clean water.



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Table of Contents

Preface.....	3
Conservation Compliance	5
A Short History.....	5
Gaining, then Losing Ground.....	7
Key Decisions Shortchange Programs.....	11
External Investigations.....	14
Reinvigorating and Strengthening Compliance.....	16
Unwavering Support Among Farmers.....	19
The Future of Conservation Compliance	22
References.....	25

Figures, Maps and Tables

Figure 1: Map – Cropland Requiring Conservation Plans.....	6
Figure 2: Soil Erosion Declined Sharply from 1982 to 1997.....	8
Figure 3: Millions of Acres in Iowa Lost More than Sustainable Rate.....	10
Figure 4: Map – Most Iowa Agricultural Land Suffered Damaging Erosion.....	11
Figure 5: Iowa Farmers Support Compliance.....	19
Table 1: Percentage of Farm Tracts Spot-Checked Nationally.....	13
Box 1: Evolution of Conservation Compliance Policy.....	7
Box 2: Top Conservation Compliance Successes.....	9
Box 3: Conservation Compliance Shortcomings.....	22

EWG is a nonprofit research and advocacy organization with offices in Washington, DC; Oakland, Calif.; and Ames, Iowa. EWG uses the power of information to educate the public and decision-makers about a wide range of environmental issues, especially those affecting public health.

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Preface

By Craig Cox

America's farmers need a safety net, but so do the rich soil and clean water that sustain not just agriculture but the entire fabric of American society.

Almost three decades ago, Congress recognized the need to protect these valuable resources when it wrote so-called "conservation compliance" provisions into the 1985 farm bill. These provisions established a simple *quid pro quo* recognizing the shared responsibility of taxpayers, farmers and landowners to ensure that our land remains productive and our streams run clear. In return for generous taxpayer support, growers agreed to apply simple practices to prevent soil erosion on vulnerable cropland. And Congress reaffirmed a decades-long tradition of sharing the cost of these protective measures among those who work the land, those who own it and the taxpayers who are sustained by its bounty.

As this paper by agricultural conservation expert Max Schnepf makes clear, a solid majority of farmers have consistently agreed over the years that this longstanding compact is a fair deal. Today, with the Sept. 30 deadline for reauthorizing the farm bill drawing ever nearer, the urgency of reinvigorating and strengthening this conservation *quid pro quo* has moved to the center of the farm policy debate, for two reasons. First, agriculture lobbyists are trying to persuade Congress to enact a new generation of farm subsidies that would guarantee farm business income – with no conservation requirements at all. Second, record high grain prices and misguided biofuel mandates are creating powerful incentives for farmers to squeeze every last bushel of crop from every last acre. In the drive for all-out production, conservation is once again being pushed to the back seat – the very situation that led to enactment of conservation compliance provisions in the first place.

The Environmental Working Group (EWG) asked Schnepf, a conservationist with deep experience in agriculture, to chronicle the history of America's conservation *quid pro quo*. We wanted to know what these provisions had accomplished, what key decisions during implementation drove those accomplishments and, most of all, how farmers regard this long-standing bargain between themselves and taxpayers.

In his paper, Mr. Schnepf shows that:

- The conservation *quid pro quo* worked. According to USDA's Economic Research Service, soil erosion on highly erodible cropland was cut by 40 percent after conservation compliance was implemented.
- A solid majority of farmers polled in 1982, 1983, 1987, 1991, 1994, 2001 and 2010 have consistently supported the idea that farmers ought to control erosion in return for taxpayer support.

But Mr. Schnepf's paper also makes clear that this all-important safety net is badly frayed today.

We at EWG think that with Congress poised to reauthorize the farm bill, now is the time to renew and update this all-important compact among farmers, landowners and taxpayers.

It is already clear that the next farm bill will produce important policy shifts. There is serious consideration of finally ending the "direct payment" program, but the allies of industrial agriculture are now pushing to replace this discredited subsidy giveaway with an unprecedented insurance program that would ensure farm business

income, all of it layered on top of already heavily subsidized programs that insure farmers' revenue from crop sales. The combination would be far more costly than the direct payments program it would replace, and it would come with no conservation strings attached.

The drive to give industrial-scale farming a taxpayer-subsidized income guarantee that would be the envy of any other business is troubling enough on its own; to offer such a giveaway while stripping away long-standing conservation requirements is simply unconscionable. Now more than ever, the nation needs a reinvigorated and strengthened conservation compact. The gold rush in farm country is putting unprecedented pressure on our soil and water, erratic weather is increasing the risk of soil erosion and polluted runoff, and scientists tell us the worst is yet to come.

Congress should be adjusting federal spending priorities to redress the balance and respond to these threats. But instead, funding has been cut every year since 2002 for the cost-share programs that help farmers pay for conservation measures – the other key component of the land and water safety net. Meanwhile, the cost to taxpayers of the profligate subsidies that reduce farmers' premiums for business income insurance that no other sector enjoys has increased almost five-fold – \$1.5 billion in 2002 to \$7.4 billion in 2011.

Crop insurance programs were tied to the conservation compact in 1985, but Congress severed that link in 1996, arguing that it was necessary in order to get farmers into crop insurance programs and avoid annual disaster payments. Now about 80 percent of farm acres are insured, thanks mostly to tripling the premium subsidies farmers enjoy. But disaster payments just keep rolling out all the same – more than \$20 billion since 1995.

Congress must, at a minimum, restore the conservation compact for all existing and any new insurance programs. And in the face the economic and climatic pressures on the nation's land and water resources, it is essential to update the this once effective bargain to reflect the more dangerous time in which we now live. Therefore, Congress must also:

- Require that farmers' conservation plans – most now 25 years old – be updated to reflect modern technology and current weather patterns.
- Require landowners to control highly damaging gully erosion on all annually tilled cropland.
- Pick up the tab for conservation planning and spot checks out of the insurance program budgets.

Conservation Compliance A Retrospective... and Look Ahead

By Max Schnepf

By a margin of four-to-one, Iowa farmers support the federal conservation compliance policy that requires growers with highly erodible cropland to control soil erosion as a condition of receiving commodity price supports, loans or other farm program benefits (Arbuckle). In a 2010 poll, two-thirds of Iowa farmers agreed they should be required to conserve soil on highly erodible cropland regardless of whether they participate in federal farm programs. And 70 percent said they would support making control of nutrient runoff a requirement for anyone accepting farm benefits.

Iowa farmers are not alone. A comprehensive literature review found 22 public opinion polls conducted at local, state and national levels before and since conservation compliance requirements were written into the 1985 farm bill. In only one of those polls did less than a majority support the requirements; a second poll resulted in what essentially was an even split for and against. The other 20 polls recorded supportive majorities; in more than half, the level of support ranged from 60 to 80 percent.

Most of the polls involved farmers exclusively, but a few included U.S. Department of Agriculture (USDA) field personnel charged with implementing the 1985 law as well as members of the banking, real estate and agricultural supply industries who work daily with farmers in rural communities.

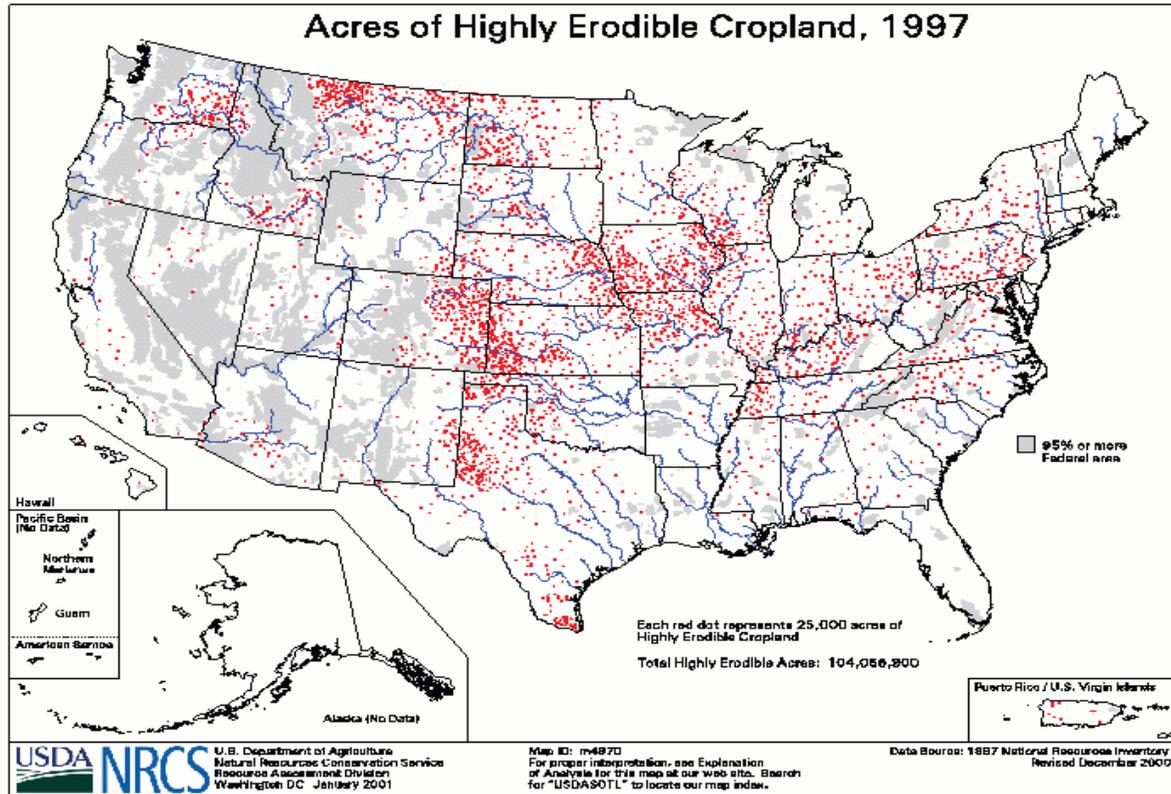
Despite this strong level of support in the farming community, anecdotal and statistical evidence suggests that USDA officials are not enforcing the requirements as vigorously as they might. As a result, average annual rates of soil erosion on cropland in Iowa and elsewhere have actually risen over the past 10 years – and may be even higher than national and state statistics indicate (Cox et al.). The result has been declines in air and water quality along with adverse effects on fish and wildlife habitat and other environmental harms that diminish the quality of life for all Americans.

Conservation compliance is supported by farmers and clearly works when it is effectively enforced. And in the current era of constrained federal and state budgets and dramatically reduced allocations for incentive-based conservation programs, it is timely to take a fresh look at the state of conservation compliance as a central element of national agricultural policy.

A Short History

Debate over linking soil erosion control on agricultural land with eligibility for federal farm program benefits began nationally in the late 1970s, when policymakers began to discuss the relative merits of “green ticket” (incentive-based) conservation programs versus “red ticket” (regulatory) programs. That debate evolved in the early 1980s when USDA released its appraisal of the status and condition of natural resources on privately owned land under the Resources Conservation Act (RCA), followed by the publication of a Congressionally mandated national conservation plan. Those documents highlighted the severity of soil erosion on cropland in many parts of the country and raised the prospect of having to use red-ticket approaches to address the problem. At about the same time, a national debate began over the widespread conversion of pasture and rangeland to agricultural production and the substantial soil erosion that resulted.

Figure 1: Cropland Requiring Conservation Plans



In 1983, this debate prompted Republican Sen. Bill Armstrong of Colorado to introduce legislation to restrain conversion of grassland to cropland by tying eligibility for certain federal farm program benefits to adequate control of soil erosion on converted land. The proposal languished until 1985, when lawmakers surprisingly wrote three innovative compliance provisions into that year's farm bill, the Food Security Act of 1985. A "sodbuster" provision picked up Armstrong's idea of demanding a measure of soil conservation on grassland that had been converted to agriculture; another section established a *quid pro quo* between eligibility for federal farm program benefits and implementing soil erosion control on highly erodible cropland; and a "swampbuster" provision tied eligibility to wetlands protection. All three provisions have been renewed, albeit in amended form, in all four farm bills enacted since then.

The conservation compliance provision asked farmers who cultivated land defined by USDA as highly erodible to develop approved conservation plans by Jan. 1, 1990, and to fully implement those plans by Jan. 1, 1995. Farmers could opt out, but doing so put them at risk of losing a long list of farm program benefits (price supports, storage loans, crop insurance, disaster payments, etc.). Because it put so many benefits at risk, much of the farming community quickly came to view conservation compliance as a regulatory program.

The resulting workload almost immediately became a point of contention among administrators at USDA's Natural Resources Conservation Service (NRCS), which was faced with asking field office employees to increase their annual planning assistance by several orders of magnitude to meet the Congressionally prescribed deadlines. By one estimate, more than one million new farm conservation plans had to be written by the Jan. 1, 1990 deadline (Figure 1). In the end, those employees succeeded in essentially completing the task for about 140 million acres of highly erodible land by the deadline, and agency leaders reported that most, if not all, of the plans had been fully implemented by the 1995 deadline.

Completing conservation plans on 140 million acres was an historic achievement. Coupled with powerful incentives to implement those plans in order to remain eligible for generous farm program benefits, the effort led to a dramatic reduction in soil erosion.

Gaining, then Losing Ground

Conservation compliance was a godsend for agricultural and conservation groups and farmers who advocated protecting soil resources for both production and environmental reasons. In the 10 years following enactment of the 1985 farm bill – with its innovative conservation compliance provisions – farmers did more to curb soil erosion than at any time since the infamous Dust Bowl years of the 1930s. By the mid-1990s, things clearly were looking up for America’s soil, streams, lakes and rivers.

Unfortunately, as a recent report (“Losing Ground”) by the Environmental Working Group found, those gains were short-lived (Cox et al.). Enforcement of conservation requirements became less vigorous after the Jan. 1, 1995 implementation deadline and derailed altogether as a result of the 1996 farm bill. In that law, Congress attempted to phase out all farm subsidies – and with them the conservation requirements. The subsidy phase-out turned out to be a mirage. Congress returned to its traditional habit of paying out billions of dollars to farmers in *ad hoc* disaster payments and ultimately reinstated price supports, loans and all other farm subsidies in the 2002 farm bill. The only thing that turned out to be real was elimination of USDA enforcement of conservation compliance. The result has been a decade of lost progress and growing conservation problems.

Evolution of Conservation Compliance Policy in the Farm Bill

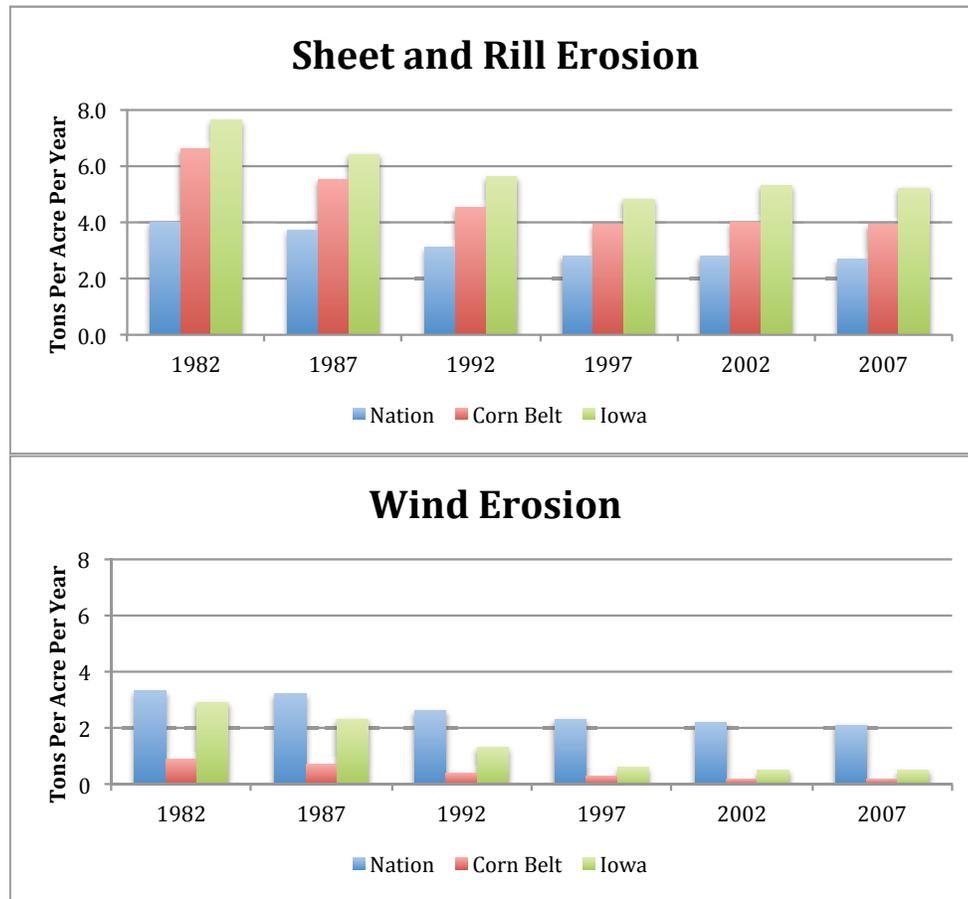
1982	USDA identifies conservation compliance as a policy option
1983	“Sodbuster” proposal introduced in Congress
1985	Conservation compliance written into the Food Security Act
1990	Deadline for writing conservation compliance plans
1990	Food, Agriculture, Conservation and Trade Act allows “good faith” waivers and sets up graduated penalties for farmers and ranchers deemed out of compliance
1995	Deadline for implementing conservation compliance plans
1996	Federal Agriculture Improvement and Reform Act exempts crop insurance from conservation requirements, allows “economic hardship” waivers and provides a one-year “grace period” to growers deemed out of compliance.
2002	Farm Security and Rural Investment Act enacted with no significant amendments/additions
2008	Food, Conservation and Energy Act shifts decisions on “good faith” determinations from local USDA offices to district/state offices

Early gains in soil erosion control were significant

In 2004, USDA’s Economic Research Service (ERS) completed a comprehensive evaluation of the effect of conservation compliance on soil erosion control efforts nationwide (Claassen and Morehart). That analysis concluded that between 1982 and 1997 conservation compliance had reduced soil erosion by 331 million tons

a year – 40 percent – on highly erodible cropland that remained in production. According to USDA’s National Resources Inventory (NRI), conducted every five years since 1982, the estimated average rate of soil erosion by water declined from 4.0 tons per acre per year in 1982 to 2.8 tons per acre per year in 1997 (Figure 2). Average soil erosion by wind declined from 3.3 tons per acre to 2.3 tons per acre (Figure 2).

Figure 2: Soil Erosion Declined Sharply from 1982 to 1997, but Progress Then Stalled



The focus on highly erodible land had significant spillover effects. First was the educational impact: Many farmers, particularly those with highly erodible land, became far more aware of soil erosion problems in their operations and the need to address them. Second, millions of the most erodible acres were removed from production entirely and enrolled in the Conservation Reserve Program (CRP). Third, soil erosion was reduced on many acres that were not highly erodible because growers began to cultivate those acres with the same residue management practices they were using on their highly erodible acres under conservation compliance plans.

Like their counterparts in other states, Iowa farmers achieved significant soil erosion control gains over the same period. The estimated average annual rate of soil erosion by water on Iowa cropland dropped from 7.4 tons per acre in 1982 to 4.7 tons per acre in 1997. Unfortunately, the gains in Iowa and elsewhere were not destined to last.

Top Conservation Compliance Successes

Conservation compliance:

- resulted in writing more than a million conservation farm plans by the Jan. 1, 1990 deadline.
- reportedly resulted in full implementation of nearly all plans by the Jan. 1, 1995 deadline.
- resulted in application of at least some conservation practices on about 140 million acres of highly erodible cropland, much of which had had little or no prior conservation treatment.
- produced a synergy between public and private partners that resulted in development and widespread adoption of new tillage technologies.
- resulted in an estimated 40 percent reduction in soil erosion on highly erodible cropland between 1992 and 1997.
- has consistently garnered majority support among growers subject to the policy, according to numerous public opinion polls,
- proved to be a major educational program, alerting many farmers that soil erosion needed to be addressed in day-to-day operations.
- reduced soil erosion on some non-highly erodible cropland because producers treated it with the conservation practices they applied to their highly erodible cropland.
- established an effective *quid pro quo* – carrots with sticks – at a time when federal funding for incentive-based conservation programs was limited.
- helped remove many acres of highly vulnerable cropland from production by enrolling them in the Conservation Reserve Program.

Soil erosion control progress wanes

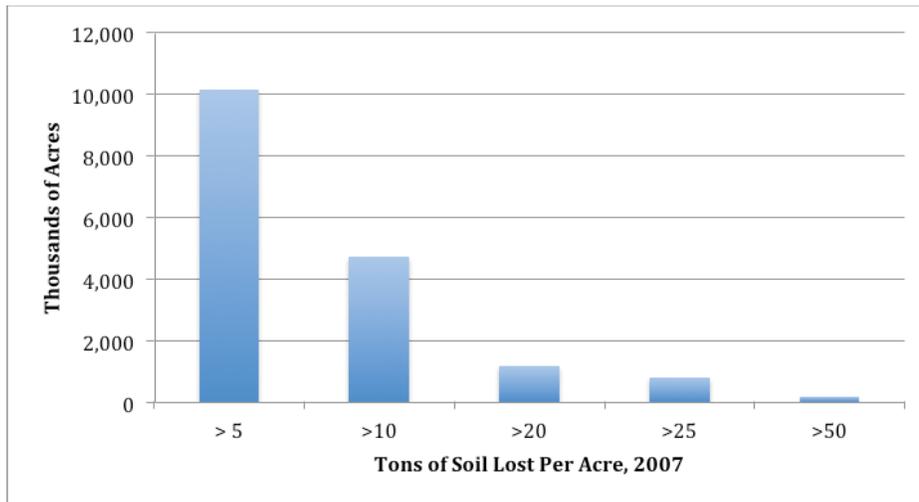
Since 1997, the reduction in soil erosion has essentially leveled off. In 2007, USDA's NRI data shows, 54 million acres of highly erodible land had estimated soil losses above the tolerance or "T" level (the highest level that can be sustained without threatening long-term soil productivity), while 46 million acres of similar land eroded at or below T. That same year, the inventory showed, 48 million acres of non-highly erodible also lost soil at rates exceeding T. (Soil erosion rates were below at T or lower on 220 million acres of non-highly erodible land.) NRI assessments of erosion by water in 1997 (2.8 tons per acre), 2002 (2.8 tons per acre) and 2007 (2.7 tons per acre) showed essentially no progress nationally in soil conservation over that 10-year period.

The Iowa experience presents a similar if not more disturbing picture. Over the past decade plus, the three NRI's found that estimated average annual rates of soil erosion on cultivated cropland in the state actually went up – from 4.8 tons per acre in 1997 to 5.3 tons per acre in 2002 and 5.2 tons per acre in 2007.

More importantly, the annual averages are grossly misleading. In sharp contrast to the 2007 NRI estimate of 5.2 tons of soil loss per acre, the Iowa Daily Erosion Project conducted by Iowa State University scientists reported that 17.1 million acres – more than half the state's cropland – suffered soil erosion that year exceeding the "sustainable" rate of 5 tons per acre. The project also found that nearly 7 million acres – about a fourth of the

total – lost more than 10 tons per acre (Figure 3) (Cox et al.). In fact, the Iowa project, which estimates erosion in each township from each storm, shows that nearly all Iowa counties suffered damaging soil erosion on cropland at some point between 2002 and 2010 (Figure 4).

Figure 3: Millions of Acres in Iowa Lost More Than the “Sustainable” Rate of 5 Tons per Acre



Unfortunately, too, as EWG’s “Losing Ground” report made clear, the soil erosion numbers from the NRI and the Iowa Daily Erosion Project tell only part of the story. Neither includes soil loss from ephemeral gully erosion, which is pervasive on cropland in Iowa and elsewhere. The mathematical models used to estimate erosion were never intended to include gully erosion, and no models that overcome this deficiency have yet been developed.

Ephemeral gullies are created by concentrated water flow during intense rainstorms. Many such gullies become direct conduits of soil, nutrients, pesticides and other potential water pollutants to streams and lakes. Most gullies are obliterated by tillage before planting the following year, only to re-form during subsequent storms.

Compliance Can Work Again

Conservation compliance has worked in the past and can work again. Not only did it result in a 40 percent reduction in soil erosion on the nation’s farms, it also proved to be an enormous educational undertaking and resulted in development and adoption of important new crop growing technologies and management practices.

As the “Losing Ground” report by EWG clearly portrayed, conservation compliance is needed now more than ever. Progress in reducing soil erosion has stalled in many parts of the country and rates have even increased in some regions over the past decade or more. That trend seems unacceptable, particularly when the science and managerial skills exist to reduce soil loss and its consequences.

The earlier *quid pro quo* between conservation compliance and eligibility for farm programs is standard practice in federal policy. Requiring people to do something in return for benefits – “carrots with strings” – is the way many federal programs work.

Recommendation 1: Reinvigorating and strengthening conservation compliance must be the top priority for USDA and Congress when the farm bill is reauthorized.

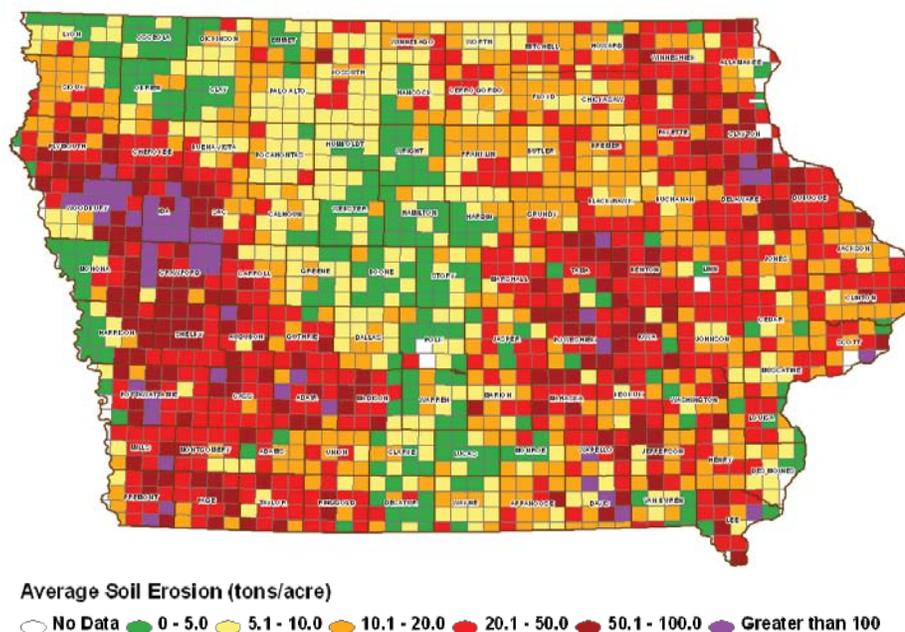
Key Decisions Shortchange Programs

Key decisions by USDA administrators and Congress during implementation of conservation compliance prevented the law from realizing its full promise (Zinn). A review of those decisions provides a road map for reinvigorating and strengthening the program.

Congressional decisions

From the outset, USDA's Farm Service Agency (FSA), then called the Agricultural Stabilization and Conservation Service (ASCS), was given the lead in administering conservation compliance. USDA's Natural Resources Conservation Service (NRCS), then known as the Soil Conservation Service (SCS), was the lead technical agency, providing conservation planning assistance and conducting annual spot checks for compliance. Prior to the 2008 farm bill, the names of farmers found by NRCS field staff to be "not actively applying" their conservation plans were passed along to local FSA office staff. FSA county committees then determined whether to cut off farm program benefits. In the 2008 farm bill, however, authority for many such decisions was shifted from local to area and state FSA and NRCS officials.

Figure 4: Most Iowa Agricultural Land Suffered Damaging Soil Erosion from 2002 to 2010.



Congress reaffirmed the conservation compliance law in four subsequent farm bills (1990, 1996, 2002 and 2008), but with several important amendments. Foremost among them were:

1. Creation of a graduated penalty for non-compliance to replace the onerous “drop-dead” penalty (loss of all farm program benefits).
2. Introduction of waivers for “good faith” and “economic hardship.”
3. A requirement that farmers found to be in non-compliance be given a year’s grace period to achieve “actively applying” status.
4. Eliminating crop insurance as one of the benefits that could be cut off for non-compliance.

Instituting graduated penalties had important implications for administrative decisions by USDA officials implementing conservation compliance. By far the most important and troubling change, however, was Congress’s decision in the 1996 farm bill to take crop insurance off the list of benefits that could be cut off for non-compliance.

Members of the Agriculture committees argued that the exemption would encourage more farmers to buy crop insurance. That goal has clearly been met – participation in crop insurance is nearly universal. Indeed, heavily subsidized crop insurance subsidies now cost taxpayers far more each year than the direct farm subsidies that are still linked to conservation compliance requirements (Babcock). Moreover, farm leaders are pushing to increase crop insurance subsidies and make crop insurance and other so-called risk management programs the centerpiece of the 2012 farm bill. The fact is, however, that there is no longer any reasonable justification for exempting farmers who enjoy the protection afforded by crop insurance from implementing basic soil conservation practices.

Recommendation 2: Congress must reinstate conservation compliance requirements for producers participating in existing or new crop and revenue insurance programs.

USDA decisions

USDA administrators made critical decisions in two areas that had important and largely negative effects on conservation compliance: (1) relaxing the soil erosion control standards that conservation plans were required to achieve, and (2) reducing the number of spot checks made to determine if growers were implementing their conservation plans.

Weaker standards

The first conservation planning process undertaken by NRCS field office employees in cooperation with farmers sought to reduce soil erosion on highly erodible cropland to the T level. Planning had hardly begun, however, when conservation planners and farmers in many parts of the country found it difficult to achieve that degree of soil erosion reduction with commonly used conservation practices and/or practices that they considered reasonable to implement and maintain from an economic or management point of view.

Alternative conservation systems were then introduced to give NRCS personnel and farmers greater latitude in deciding what level of soil erosion control would be required to achieve and maintain “actively applying” status. This, in turn, led to widespread use of more limited soil conservation practices that reduced the anticipated soil erosion control gains. A Soil and Water Conservation Society (SWCS) study conducted in 30 counties in all major agricultural regions between 1989 and 1991 found that just two practices – crop residue use and conservation cropping systems – dominated nearly 1,100 randomly selected conservation plans (Soil and Water Conservation Society). Contour farming, conservation tillage and terracing were the next most common practices, but their use

was planned on far fewer acres. A later examination of conservation plan data by USDA's ERS found that 51 percent of the 1,600 conservation plans approved by NRCS included just three practices used individually or in combination – conservation cropping sequence, conservation tillage and crop residue use (Claassen and Morehart).

The upside to this extensive reliance on crop residue-related practices was the technology-forcing synergy that occurred between equipment manufacturers and farmers. Within a matter of years, this resulted in development of a whole new generation of conservation tillage equipment and management practices that proved both practical and economical for many farmers, not only on highly erodible land but on less vulnerable land that nevertheless was subject to some erosion. The downside was that soil erosion control gains likely would have been more substantial if USDA program managers had adhered to stricter erosion control requirements.

The Conservation Reserve Program (CRP) was intended, in part, as a safety valve for growers who found it difficult or impossible to meet the soil erosion control standard. There has been speculation that the push to enroll millions of acres in CRP to prop up land prices during the farm recession of the 1980s negated the program's role as a safety valve for farmers unable to meet erosion control standards and put pressure on USDA administrators to weaken the standard, but there is no documentation on the extent to which this occurred.

Limited spot checks

Another decision by USDA officials that has had significant implications involves oversight and enforcement. Initially, NRCS officials opted to conduct annual spot checks on as many as 5 percent of all farm tracts covered by conservation compliance plans. Agency leaders, however, soon lost enthusiasm for oversight and enforcement activities. This was in part because of a developing tendency of FSA county committees not to deny farm program benefits to farmers for not actively applying their conservation plans, and in part because of the stress created by the perception that employees of the agency, long a service-minded arm of government, were fast becoming policemen of farmers and farming methods. The number of spot checks completed annually by NRCS employees has since declined, and many field office employees have become more and more reticent to report non-compliant farmers to FSA officials (Table 1).

Table 1: Percentage of Farm Tracts Spot-Checked Nationally for Compliance

Year	Percent	Year	Percent
1990	No data available	2001	0.4
1991	No data available	2002	0.4
1992	No data available	2003	0.4
1993	1.2	2004	0.7
1994	1.1	2005	0.7
1995	1.0	2006	0.6
1996	1.1	2007	No data available
1997	1.1	2008	No data available
1998	0.3	2009	No data available
1999	0.3	2010	No data available
2000	0.4	2011	No data available

Source: USDA, NRCS

External investigations

Oversight investigations by outside organizations are a rich source of information on the effectiveness of conservation compliance. External oversight of USDA's administration of the law has been substantial and, on balance, quite critical. Field studies by public agencies and private organizations alike have regularly cast doubt on the department's vigor in enforcing a policy that had wide bipartisan support when it was first written into the 1985 farm bill.

Soil and Water Conservation Society, 1990

The earliest and perhaps most elaborate private sector look at USDA's implementation of conservation compliance and other provisions of the 1985 farm bill was the SWCS study conducted between 1989 and 1991 (Soil and Water Conservation Society). Over this three-year period, teams representing SWCS and other conservation and farm organizations, along with USDA officials, visited 30 randomly selected USDA field offices in the major agricultural regions. Team members examined 50 randomly selected conservation compliance plans in each office and then visited each of the farms to determine if the plans were being implemented on schedule. That exercise produced the following findings:

- About 30 percent of the conservation practices in the compliance plans could not be verified as being actively applied on schedule.
- Plans at two-thirds of the sites visited relied largely or entirely on crop residue management to achieve the specified reductions in soil erosion, and team members questioned whether many of the specified targets could realistically be achieved.
- Field office personnel were conducting many annual status reviews at inappropriate times during the growing season, and measurement techniques used to assess compliance were sometimes inappropriate.
- Only one compliance violation was reported as a result of status reviews in 1990 and 1991. (Farmers were to begin implementing their plans as of Jan. 1, 1990 on schedules specified in those plans.)
- Soil erosion reductions as a result of conservation compliance would be substantial, but less than the estimates of USDA personnel.

USDA Office of the Inspector General: 1991, 1995, 2002 and 2008

USDA's own Office of the Inspector General (OIG) has been asked multiple times to look at administration of the law. In the first examination in 1991, OIG audited administration of the law by SCS (now NRCS) and ASCS (now FSA) in 30 counties in 10 states (Office of the Inspector General, 1992). OIG's investigators examined a random sample of several hundred tracts scheduled for a status review that year. They found that 10 percent were not in compliance, and that an estimated \$20 million in federal program payments could have been suspended on the 5 percent sample of highly erodible fields. Of 292 conservation plans examined, 86 percent did not meet SCS's technical requirements.

A 1995 OIG study examined whether farmers were complying with the law and what levels of soil erosion control they were achieving (Office of the Inspector General, 1995). In the 30 counties audited, investigators

found that estimated soil erosion had been reduced from 9.5 tons to 5.1 tons per acre per year as a result of conservation compliance, but that conservation plans tended to overestimate the rates of soil erosion associated with those plans. Nearly half the farm tracts (47 percent) had estimated rates of soil erosion at or below the T level as a result of the plans, but 21 percent were found to be out of compliance. Moreover, 40 percent of the tracts examined had received \$212,000 in farm program benefits even though estimated soil erosion exceeded the acceptable level. OIG offered several recommendations for improving and documenting soil loss estimates and suggested that NRCS officials improve guidance to state and local staff for identifying and treating ephemeral gully erosion.

In 2002, OIG conducted two reviews of USDA's administration of the conservation compliance policy and found that NRCS officials were not conducting status reviews in proper fashion and at critical times (Office of the Inspector General, 2002). They also found that documentation was lacking on whether growers were complying with the law. The audits called for greater cooperation between NRCS and FSA in administering conservation compliance policy.

The most recent OIG investigation, initiated in 2008, was to be conducted in two phases. The first phase evaluated changes in the status review process resulting from earlier OIG and U.S. Government Accountability Office (GAO) investigations and recommendations. The second phase was to involve a series of field investigations of a sample of tracts involved in the status review process and to assess agency compliance with status review policy and procedures. A June 2008 report covering Phase I concluded that USDA had responded to earlier recommendations for improving the process but that an unusually high number of tracts (98+ percent) had been found in compliance from 2002 to 2006 (Office of the Inspector General, 2008). The investigators reported that \$125 million in federal farm program benefits had been withheld by FSA as a result of the few reported violations, but that \$103 million – an unusually high 83 percent – was later reinstated by the agency. Phase II of this work has not yet been initiated because of altered priorities within OIG.

Government Accountability Office: 1990, 1994, 1995 and 2003

On several occasions GAO has critically examined administration of the conservation compliance provision by both SCS/NRCS and ASCS/FSA leaders. In 1990, for example, GAO recommended that SCS officials improve the quality of farmers' conservation compliance plans and enforce the law more vigorously (U.S. General Accounting Office, 1990).

In 1994, GAO officials followed up by examining whether SCS leaders had improved their administration of conservation compliance (U.S. General Accounting Office 1994). The findings found signs of progress but concluded that SCS still could improve enforcement with an improved status review process and by establishing clearer authorities for state and local offices. GAO also concluded that effective enforcement of conservation compliance would require a change in the "culture" of SCS because of its new regulatory role, as opposed to its traditional function of advising and helping farm owners and managers.

A year later, GAO auditors looked at USDA's flexibility in implementing conservation compliance in different regions of the country, at differences in farming practices and at the associated costs and benefits of the law (U.S. General Accounting Office, 1995). GAO found that use of alternative conservation systems had increased flexibility. They also found that 75 percent of conservation plans specified residue management as the primary

means of controlling soil erosion and that use of reduced tillage had increased 30 percent from 1990 to 1994. Although good cost and return data for conservation compliance practices generally were not available, the auditors cited reduced erosion and improved surface water quality as environmental benefits but expressed concern about the increased pesticide and herbicide applications required by some crop residue management practices.

A far more critical GAO report in 2003 found that personnel in nearly half of the NRCS field offices visited across the country were not implementing the law as required. The same report chided FSA officials for refusing to cut off farm program benefits when NRCS employees reported that farmers were not actively applying their conservation plans (U.S. General Accounting Office, 2003). Between 1993 and 2001, the GAO report noted, 5,084 tracts and 7,187 farmers were reportedly found to be not actively applying their plans; farm program benefits totaling more than \$42 million were at risk as a result, but FSA ultimately denied less than 20 percent of those dollars.

Reinvigorating and strengthening compliance

The external investigations make clear that USDA's decisions to weaken conservation planning standards and limit spot checks limited the soil erosion reductions achieved through conservation compliance. Moreover, an ongoing reluctance to penalize farmers found to be out of compliance has undercut the impact of the program.

After two decades of experience with the law, three steps must be taken to reinvigorate and strengthen conservation compliance:

1. Stronger conservation plans and erosion control standards.
2. A more effective system of spot checks.
3. Greater willingness to actually deny benefits when farmers are out of compliance.

Stronger conservation plans

The introduction of so-called alternative conservation systems increased flexibility but just as clearly resulted in smaller improvements in controlling erosion than would have been achieved through conservation compliance. The weakness of soil conservation plans – reliance on only one or a few practices and continuing erosion even after plans were actively applied – are well documented in the external oversight reports outlined above.

Congress and USDA have added multiple new provisions since 1985, including exemptions for producers who act in good faith but are not actively applying their conservation plans, graduating penalties according to the severity of damage caused when plans were not actively applied, and waivers for economic hardship and failure to implement soil conservation plans because of weather-, pest-, and disease-related incidents. USDA now has the flexibility to adjust a soil conservation plan designed to achieve T in cases where it would impose clear economic hardship on growers and to work with them if problems arise during implementation of more comprehensive plans.

Ephemeral gully erosion poses a significant problem for enforcement of the law. Conservation plans are required to address ephemeral gully erosion to maintain eligibility for farm program benefits, but the pervasiveness of this form of erosion suggests that, for whatever reason, administration of the law has largely

ignored this phenomenon. This raises the question of what soil erosion control standards were required under original or legacy conservation plans versus more recent plans. To be effective, soil conservation plans must include adequate measures to control ephemeral gully erosion, and evidence of gully erosion must automatically indicate a failure to actively apply a conservation plan.

More than 25 years have elapsed since conservation compliance became law in 1985. It is reasonable now to ask farmers to do more to address the impact of erosion and runoff on water quality – an issue that has grown in importance since 1985.

Recommendation 3: Reopen and revise all legacy soil conservation plans approved and implemented before July 3, 1996. Practices prescribed in the revised plans must reduce soil erosion to the land's T value and prevent ephemeral gully erosion.

Expanding the reach of conservation compliance to include controlled ephemeral gully erosion on all agricultural land, not just highly erodible cropland, coupled with requiring a minimal vegetative buffer (35 feet) between row crops and waterways, would result in major progress in reducing polluted runoff.

Recommendation 4: Require treatment and/or prevention of ephemeral gully erosion on all agricultural land – not just highly erodible land – owned by producers or landlords receiving income, production, insurance or conservation subsidies, and require a vegetative buffer at least 35 feet wide between row crops and all lakes, rivers and smaller streams.

More intensive spot-checks

Nearly all oversight investigations have noted serious deficiencies in the annual status reviews that are a cornerstone of conservation compliance. The reviews spot check a sample of highly erodible cropland to determine if the required conservation plan is being actively applied. The NRCS' National Food Security Act Manual provides that "the number of tracts selected will be sufficient to accurately assess compliance with HELC [highly erodible land conservation] and WC [wetland conservation] provisions of the Food Security Act at the national level."

Surveys conducted by the American Farmland Trust (AFT) in 1993 and 1995 asked farmers to estimate their chances of being found in non-compliance. A substantial majority – 63-to-78 percent – believed there was at least a 50-50 chance that non-compliance would be detected. But the respondents said the odds of identifying non-compliant farms would be 3.4 to 6.9 times greater if USDA's spot checks used aerial photography to check on compliance with such practices as contour strips, buffer strips, terraces, contour farming, etc. – though not with crop residue management. Multiple AFT surveys between 1990 and 1996 found that farmers' perceptions of the level of monitoring, detection and penalties for non-compliance were closely tied to the perceived certainty of detection and punishment (Esseks et al., 1996; Esseks et al., 1997).

At a minimum, NRCS must ensure that the number and distribution of tracts sampled each year provide a statistically accurate sample – at the state rather than the national level – sufficient to determine whether soil conservation plans are being actively applied.

USDA must make status reviews more rigorous in order to assess compliance more accurately and demonstrate to producers that failure to apply required conservation practices will be detected.

Recommendation 5: USDA must make status reviews more rigorous to assess conservation compliance more accurately.

To reinvigorate and strengthen the program, Congress should mandate that a portion of the funding for farm programs subject to conservation compliance requirements be used to increase the available technical staff. A portion of the funding for voluntary programs is already routinely allocated to support technical assistance. The same approach should be used to ensure that adequate staff and resources are available to enforce conservation compliance.

Recommendation 6: Use a portion of the funding provided for income, production, insurance and conservation programs to pay for additional technical staff to develop and implement conservation plans and to conduct annual inspections to certify that the plans are properly implemented and maintained.

Willingness to impose penalties

Curiously, field auditors from both OIG and GAO have been preoccupied with NRCS's role in implementing conservation compliance, even though both agencies' investigations have documented that only a small amount of benefits have been denied and substantial benefits are still flowing to producers who do not meet soil conservation standards. There has been less focus on the FSA officials who have had the lead administrative responsibility for the law from the outset. FSA officials are responsible for making final determinations on whether producers qualify for the most important exemptions and variances, including the good faith exemption, graduated penalties and eligibility for relief because of economic or personal hardship. NRCS's more limited role is to provide the technical information and guidance for the decisions made by FSA.

According to some observers, FSA officials, who have extensive experience with enforcement of commodity program rules, have been largely unwilling to deny farm program benefits to farmers who do not actively implement their conservation plans. It is FSA that bears the greatest burden of responsibility for the law's ineffectiveness and the apparent acrimony between FSA and NRCS officials.

Recommendation 7: USDA's Office of the Inspector General should undertake an investigation of FSA's procedures and performance in implementing and enforcing conservation compliance.

In one encouraging sign, fragmented anecdotal evidence suggests that the additional authority to impose graduated penalties provided under the 2008 farm bill may have resulted in more aggressive enforcement by FSA, but conservation compliance will not be effective unless the agency consistently imposes the required penalties.

Recommendation 8: Create an Office of Compliance within USDA to either provide rigorous oversight of FSA and NRCS enforcement activities or take direct responsibility for enforcement itself.

Unwavering Support Among Farmers

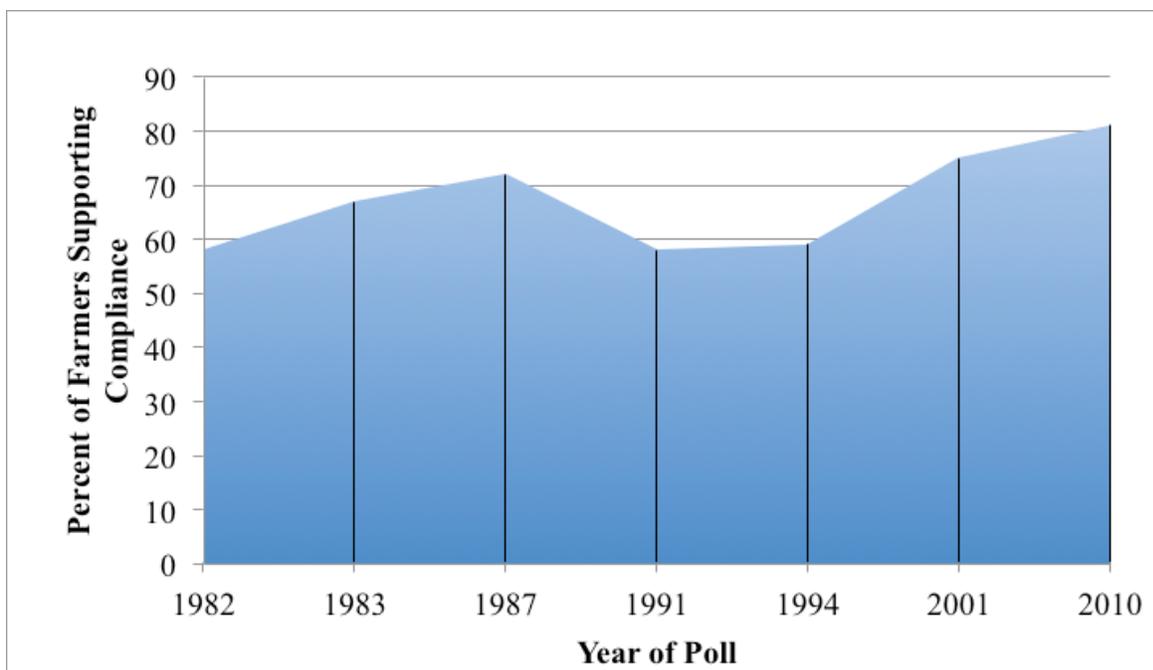
Farmers consistently support conservation compliance as a compact between taxpayers and themselves. In return for taxpayer support, a majority of farmers think it is fair to expect a basic level of soil conservation. Indeed, in several polls, farmers have affirmed that farmers bear a responsibility to protect and improve soil quality even if they do not participate in federal farm programs.

Polling prior to passage of conservation compliance

A majority of Iowa farmers consistently support requiring conservation measures in return for taxpayer support of agriculture. Opinion polling of farm audiences on conservation compliance began in the early 1980s as the national debate over the program's efficacy gained momentum. This was particularly true in the Iowa Farm and Rural Life Poll, which asked compliance-related questions every year from 1982 through 1985 (Lasley et al.).

The Iowa poll has been conducted annually since 1982 by rural sociologists at Iowa State University. The poll is based on a random sample of several thousand farmers selected from Iowa Agricultural Statistical Service records. The poll questions vary from year to year and deal with a variety of farm management and quality of life issues. Over the past three decades, however, the poll has frequently included questions related to conservation compliance and other agricultural conservation issues. Iowa farmers have consistently expressed support for tying soil conservation, wetland protection and other land stewardship measures to eligibility for federal farm program benefits.

Figure 5: Iowa Farmers Support Conservation Compliance



In the 1982 poll, 58 percent said farmers should have an approved conservation plan to qualify for federal financial assistance. Sixteen percent were undecided and 26 percent opposed. In the 1983 Iowa poll, 67 percent of respondents said an approved conservation plan should be required.

Polling during implementation of conservation compliance

Polls show that a substantial majority of farmers continued to support conservation compliance as the law became a reality on the ground. Implementation was a two-step process. Farmers were required to complete a conservation plan by 1990 and to fully implement the practices called for by the approved plan by 1995.

Iowa farmers were again the most frequently surveyed. The Iowa Farm and Rural Life poll asked questions about conservation compliance in 1987, 1991 and 1994:

- In the 1987 Iowa poll, the first following Congress's passage of the conservation requirements, support for the policy had grown. In that poll, 72 percent of respondents favored requiring farmers to implement an approved conservation plan to remain eligible for farm program benefits; 17 percent were opposed; and 11 percent were "uncertain."
- In 1991, when most farmers would have adopted a conservation plan and begun implementation, support for compliance requirements remained strong – 58 percent supported the policy, more than twice the number who were opposed.
- In 1994, the poll directly asked if conservation compliance should be continued; 59 percent of farmers said yes, 26 percent said no, and 15 percent were not sure.

Iowa farmers were not alone in their support for conservation compliance as the law became a reality. In early 1988, SWCS staff members and University of Wisconsin researchers conducted a national survey of county-level USDA personnel involved in implementing the policy (Nowak and Schnepf, 1989). When asked whether farmers in their counties accept conservation compliance, 71 percent replied that "most accept" and 3 percent replied "all accept." Nearly half (47 percent), however, said farmers believed the implementation timetable would change. An even higher number (56 percent) said farmers were expecting enforcement to be relaxed.

In a survey conducted by *Successful Farming* magazine at about the same time, 61 percent of farmers said they "accept" the requirement.

A three-year evaluation by SWCS staff of how USDA agencies had implemented the conservation provisions of the 1985 farm bill included perhaps the most elaborate survey ever done on conservation compliance and related issues (Soil and Water Conservation Society). Field work for the survey was done from 1989 to 1991 in USDA field offices and on more than 1,500 farms in 30 counties across 29 states. Throughout this study, local USDA program managers, producer committee members (county ASCS committees, conservation district boards of directors, etc.), representatives of agribusiness and farmers expressed support for conservation compliance. Nearly all of the 120 local USDA program managers at 30 "highly erodible land" sites visited said they believed the law represented good agricultural conservation policy, and nearly all said their producer committee members were either "very supportive" or "moderately supportive" of the policy – a point confirmed in interviews with producer committee members.

Likewise, a majority of farmers surveyed in 1989 expressed support for the policy (74 percent) and said that

many other farmers either “strongly agree” (8 percent), “agree” (49 percent), or were “neutral” (27 percent). Survey work with farmers during 1990-1991 showed nearly as much support for conservation compliance: 13 percent “strongly agreed” with the policy, 52 percent “agreed” and 13 percent were “neutral.” About two-fifths of the respondents said most of their neighbors either “strongly agreed” (3 percent) or “agreed” (39 percent) with the policy, while 20 percent said their neighbors “neither agreed nor disagreed.”

Numerous other opinion polls have been conducted on the national, state and local level since the late 1980s. In nearly every case, a majority of farmers or others polled supported the conservation compliance law:

- A 1989 survey of 371 Ohio farmers found a “slightly favorable” attitude toward conservation compliance (Napier and Napier).
- Also in 1989, two Illinois researchers reported that a survey of 415 producers with highly erodible land in five Midwestern states found “attitudes conducive to conservation compliance” (Esseks and Kraft, 1989).
- In contrast, a Texas survey conducted in the late 1980s found that only 37 percent of Texas farmers agreed that farm program benefits should be tied to compliance with environmental provisions (Mjelde).
- A 1990 survey of Kansas farmers and cattlemen by researchers at Kansas State University found that 70 percent of livestock producers and 60 percent of grain producers favored conservation compliance as a condition for receiving benefits (Barkley and Flinchbaugh).
- In 1992, a survey sponsored by the American Farmland Trust (AFT) interviewed a random sample of 885 farmers with conservation compliance plans and found that a majority said they intended to implement their plans. (Esseks et al., 1996).
- AFT conducted a follow-up survey in late 1993 that focused on the Midwest as an area where attitudes toward conservation compliance seemed less positive (Esseks et al., 1996). It found, however, that despite weather problems that year, most farmers in the region continued to support implementation of their conservation compliance plans.
- In 1995, a telephone survey of a random sample of 1,000 farmers in the Corn Belt, the third in the series sponsored by AFT, found that 60 percent said they would continue applying their conservation plans even if federal deficiency payments were cut in half (Esseks et al., 1996).

Polling following full implementation in 1995

Polls conducted after 1995, when farmers were required to be fully implementing their conservation plans, still revealed majority support for the law. Indeed, two of the polls revealed a willingness by agricultural producers to expand the conservation requirements in return for farm program benefits.

- The 2001 Iowa poll asked farmers whether they should be required to adopt conservation technologies on highly erodible land in return for payments: 34 percent strongly agreed; 41 percent somewhat agreed; 9 percent somewhat disagreed; 4 percent strongly disagreed; and 12 percent were not sure.
- Also in 2001, four Ohio State University researchers probed attitudes toward strengthening conservation compliance policy in a random sample of that state’s farmers (Zulauf et al.): 56 percent agreed with

requiring the use of reduced tillage practices in exchange for federal benefits; 49 percent agreed with requiring 20-foot buffer strips along waterways; and 24 percent agreed with requiring no-till practices and planting cover crops after harvest.

- The 2010 Iowa Farm and Rural Life Poll showed that two-thirds of Iowa farmers said they should be required to conserve soil on highly erodible cropland regardless of whether they participate in federal farm programs. Moreover, 70 percent said they support requiring control of nutrient runoff as a condition of eligibility for federal farm programs.

Conservation Compliance Shortcomings

1. Enforcement has waned over the past decade to the point that soil erosion has actually risen in some areas, with adverse consequences for air and water quality, fish and wildlife habitat and other environmental factors.
2. USDA weakened soil erosion control when it abandoned the soil loss tolerance or “T” standard in favor of “alternative conservation systems.”
3. Farms’ conservation compliance plans have relied far too heavily on a limited set of practices, particularly various forms of crop residue management, to achieve and maintain “actively applying” status.
4. Farm conservation plans are unlikely to produce the estimated soil savings because they rely on crop residue management practices and specified crop residue levels that are not always achievable,
5. Spot checks have been so limited in many years and in so many locations that farmers no longer fear being declared “not actively applying” their conservation plans.
6. Although conservation compliance resulted in an estimated 40 percent reduction in soil erosion on highly erodible cropland between 1982 and 1997, there has been almost no further progress.
7. Farm plans largely ignore ephemeral gully erosion – a pervasive problem in the Corn Belt and elsewhere – raising important questions about whether those existing plans represent “best-practice” conservation.
8. Audits and investigations by public agencies and private organizations alike have repeatedly documented administrative shortcomings in USDA – as early as 1989 and as late as 2008 – suggesting that many more farmers were “not actively applying” their farm plans and more farm program benefits might have been denied.
9. Ongoing rancor between USDA’s Farm Service Agency, which has the lead responsibility for enforcement, and the Natural Resources Conservation Service, which provides technical assistance to farmers and conducts spot checks of compliance, has contributed to enforcement failures.
10. Administrators lost enormous leverage in enforcing the law when the 1996 farm bill exempted crop insurance from the list of farm program benefits at risk for non-compliance.

The Future Of Conservation Compliance

The experience with conservation compliance policy over the past two and a half decades lends itself to at least four important conclusions:

1. A majority of farmers in most locations across the country clearly support the conservation compliance requirements.
2. The quid pro quo between conservation compliance and receipt of federal farm program benefits is common practice in many federal programs. People are asked to do something in return for benefits of one kind or another – “carrots with strings.”
3. Conservation compliance worked previously and can work again. Not only did its implementation result in a 40 percent reduction in soil erosion on farms, but it also proved to be an enormously valuable educational undertaking that resulted in development and adoption of important new crop production technologies and management practices.
4. As the “Losing Ground” report by EWG clearly portrayed, conservation compliance is needed now more than ever. Soil erosion rates are no longer dropping in many parts of the country and have even increased in some regions over the past decade or more. That trend is unacceptable, particularly when the science and managerial skills exist to minimize soil loss and its consequences.

Voluntary programs and technical assistance from governmental technicians and scientists are unlikely to keep soil and water together in the face of growing pressure to farm the land ever more intensely. There is no track record to justify such expectations. The pressure for all-out production is exacerbated even further by profound changes in land ownership. Meanwhile, conservation programs are being overwhelmed by farm and biofuel policies that, some say, magnify the perverse incentives of a marketplace that turns a blind eye toward soil degradation and water pollution.

Clearly, it is time to make sure that the most basic, traditional conservation practices that hold soil and watersheds together are in place where needed. Science tells us that such practices would result in big improvements in protecting the environment and sustaining agricultural production in response to climate change. These conventional practices will not solve every problem, but they will go a long way toward building the foundation for more targeted efforts.

It is time to revert to what works – requiring farmers to protect soil and water in return for the billions in income, production and insurance subsidies that taxpayers put up each year to secure the nation’s agricultural system. It was good policy in 1985, and it makes even more sense now.

The first step is to get back to full enforcement of the conservation compliance law. NRCS staff members must intensify their annual inspections to determine whether farmers are controlling soil erosion and runoff, and FSA officials must make full use of their authority to impose graduated and/or drop-dead penalties on farm owners and managers who fail to comply with conservation requirements.

But more needs to be done. It has been 20 years since farmers were first asked to draw up conservation plans. It is only reasonable that they now be asked to meet today’s challenges in return for a continuing flow of income, production and insurance subsidies. To summarize, reviving meaningful conservation compliance will require these steps:

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- USDA officials and Congress must make it a top priority to reinvigorate and strengthen conservation compliance requirements as the farm bill is reauthorized.
 - Congress must reinstate conservation compliance requirements for producers participating in existing or new crop and revenue insurance programs.
 - All legacy soil conservation plans (those approved and implemented before July 3, 1996) must be reopened and revised. Practices prescribed in the revised plans must reduce soil erosion to the land's T value and prevent ephemeral gully erosion.
 - Producers or landlords receiving income, production, insurance or conservation subsidies must be required to treat and/or prevent ephemeral gully erosion on all agricultural land – not just highly erodible land – and to plant vegetative buffers at least 35 feet wide between row crops and all lakes, rivers and smaller streams.
 - USDA must increase the intensity of status reviews to assess compliance with the law's provisions at the state and national level.
 - A portion of the funding provided for income, production, insurance and conservation programs should be used to pay for the technical staff needed to develop and implement conservation plans and to complete annual inspections to certify that those plans are properly implemented and maintained.
 - USDA's Office of the Inspector General should undertake an investigation of FSA's procedures and performance in implementing and enforcing conservation compliance.
 - If enforcement of the policy within FSA and NRCS continues to be a problem, USDA should create an Office of Compliance that is either charged with rigorous oversight of enforcement activities or given direct responsibility for enforcement.

In the end, the critical question remains: Can policymakers muster the will to reinvigorate and strengthen conservation compliance?

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