

Summary of Testimony
Collin O'Mara, President and CEO National Wildlife Federation
Hearing on Advanced Biofuels under the Renewable Fuel Standard
Friday, June 22, 2008

My written statement and oral presentation will discuss the potential for truly advanced biofuels to displace petroleum fuel while offering ecosystem services such as wildlife habitat, improvements to water quality and storage, and climate change mitigation. I will discuss what the National Wildlife Federation believes have been the primary obstacles to the development and commercialization of advanced and cellulosic fuels. Finally, I will discuss a path forward for the Renewable Fuel Standard and our vision for the role of advanced biofuels in the future. Some of the specific points will include:

- Scientific analysis has shown that second generation advanced fuels can be produced from sources that avoid the pitfalls that have accompanied first generation corn- and soy-based fuels and actually improve the environment while stimulating local economies all across the country.
- These alternatives are badly needed, because increased corn and soy production has destroyed millions of acres of wildlife habitat, sent additional pollution into our waters that feeds massive algal blooms and dead zones, and most likely contributed to climate change.
- The main impediment to development of the advanced sector has been the uncertain and non-binding nature of the RFS2 mandate. The shifting annual volume requirements have created a constantly moving and uncertain target, while the issuance of waiver credits undermines the mandates and the need for the liquid fuels.
- Governmental support for advanced fuels must be prioritized over conventional biofuels.
- The GREENER Fuels Act (H.R. 5212) offers a path forward for the RFS that deemphasizes first generation fuels while creating real mandates to bring advanced fuels to market parity, primarily for use in aviation and shipping, while the rest of the transportation sector moves toward electrification.

Statement of Collin O'Mara

President and CEO of the National Wildlife Federation

Before the House Energy and Commerce Committee, Environment Subcommittee

Hearing on Advanced Biofuels under the Renewable Fuel Standard

Friday, June 22, 2018

Chairman Shimkus, Ranking Member Tonko, Members of the Committee:

Thank you for the opportunity to testify before you today. My name is Collin O'Mara, and I serve as President and Chief Executive Officer of the National Wildlife Federation, the nation's largest conservation organization with more than 6 million members and supporters and 51 state and territorial affiliates, representing hunters and anglers, birders and gardeners, and outdoor enthusiasts from across America. Our mission is to unite all Americans to ensure wildlife thrive in a rapidly changing world—and we work collaboratively to conserve habitat and waterways, promote our outdoor heritage, and connect the next generation with nature.

Today's hearing is an important addition to the Subcommittee's efforts to analyze the successes and shortcomings of the Renewable Fuel Standard (RFS) since it was first passed in 2005. A central feature of the current version of the law is the vision that cellulosic and other advanced biofuels would gradually dominate the renewable fuel hierarchy over time, bringing with them tremendous reductions in climate pollution and other environmental and economic benefits. Yet, as we all know, that promise has failed to materialize, and the next generation of truly advanced fuels made from materials other than food crops currently plays only a tiny role in meeting our fuel demands with little expectation of meaningful growth in the near term.

I fully support this Committee's investigating how this missed opportunity came to pass, and specifically, how the statute creating the RFS has failed to spur – and even inhibited – the growth of the advanced biofuel industry. I would urge you to next go further and act to reform the law to fix the

underlying problems. Given all that is at stake in terms of our changing climate, efforts to clean up our water, and the law's contribution to an escalating wildlife crisis in this country, there is no more time to wait. The RFS must be reformed now, before the problem gets worse and more expensive to solve.

The Potential of Advanced Biofuels vs. the Reality

The National Wildlife Federation supported passage of the RFS in its current form in 2007 because we believe in the potential for truly advanced fuels, if done the right way, to play a meaningful role in our transportation sector while benefiting our environment. The science continues to show that sustainably harvesting native grasses and other plants for biofuels, along with utilizing waste products and residues, can be done so as to protect water quality and quantity, provide habitat for numerous wildlife species such as pollinators and birds, and sequester carbon in the soil. All of these things can be done in concert with other land uses such as livestock grazing, offering farmers, ranchers, and other landowners valuable new revenue streams. A diverse array of biofuel production methods dispersed all around the country, with local options appropriate for each state, region, or soil and climate type: that is the vision we supported.

Corn stover from farms in Iowa, Illinois and Ohio; methane from digesters on dairy and poultry farms from Upstate New York to North Carolina to California; forest thinnings from Georgia, Colorado, and Oregon; and diverse grasses from North Dakota down to Mississippi: all of these could be providing fuel, helping the climate, and benefiting wildlife. This is the type of innovation and entrepreneurship that this law was intended to foster.

What has come about, instead, is by and large an industry dominated by corn and soy production in the center of the country, with fuel transported by truck or rail to the rest of the country. Rather than a mosaic of varying land uses and feedstocks, rising demand for corn and soy has led to an expansion of industrial-scale crop production, some on newly cropped land, and an intensification of

production on existing cropland. Both sides of that coin – expansion and intensification of monocrop agriculture – have negative impacts to wildlife, water quality and availability, and the climate.

Even though it is required by the law to report every three years on the environmental impacts of the RFS, the Environmental Protection Agency (EPA) has failed to issue a report since its first one in 2011, depriving the public and the Congress of the necessary review of the entirety of the impacts of the RFS on our land, water, and air – including the damage that has been done as domestic corn ethanol production surged to more than 16 billion gallons annually, and soy biodiesel to two billion gallons. Yet independent scientific research and modeling have consistently shown that increased crop production has led to conversion of millions of acres of native prairie and other wildlife habitat; increased chemical runoff into waterways that fuels devastating algal blooms like those in Lake Erie, and dead zones like the largest ever in the Gulf of Mexico last summer; declining biodiversity across farm country; and massive climate impacts from land conversion and increased fertilizer use that calls into question the benefits of these first generation fuels.

Furthermore, consumers and local communities have borne the brunt of these impacts. The 400,000 residents of Toledo, Ohio lost access to clean drinking water for three days in 2014 due to a massive toxic algal bloom fed by farm runoff. Polluted waters and dead zones prevent fishing, swimming, and boating, depriving local economies of valuable tourism dollars. Declining pheasant and quail populations and converted natural and conservation lands have prevented hunting opportunities.

Meanwhile, the cellulosic fuels that hold the potential to reverse these alarming trends have been left behind. Even though the law calls for seven billion gallons of those fuels this year, the EPA is requiring a mere four percent of that amount, or 288 million gallons. The rest of the “advanced” category is being filled with soy-based biodiesel, a first generation fuel with nearly the same land, water, and biodiversity challenges as corn ethanol.

What Went Wrong?

While there are many reasons why cellulosic and other next-generation advanced fuels have not come online at any scale, it is critical members of this Committee understand the role the statute, itself, has played in holding them back. For more than a decade, the stagnation of the advanced biofuel industry has not been met with any meaningful revisions to the program. The statute has seen no revision over this time, and the administration of the program has been beset by legal squabbling and political infighting. Meanwhile, fundamental flaws with the program have been left to fester.

At its core, the RFS is a mandate to blend biofuels into gasoline. But for that mandate to mean anything, it has to be binding. In the case of cellulosic and advanced fuels, that has not been the case, leaving this fledgling industry at a loss as to what the requirements are from year to year, and without the certainty that its products will actually be consumed in the market if produced. This has impeded financial investment in the development of new technologies that were proven in labs across the country. In my view, the other factors that have piled on to complicate development and success of the advanced sector are secondary to this fundamental failure of the mandate.

This failure is rooted in the problem of an aspirational mandate. While corn ethanol and soy biodiesel have been around for decades, the RFS2 was meant to stimulate new production methods that did not yet exist – and to do so in a big way. In light of higher-than-expected technological hurdles and a global recession that dried up investment capital, the statutory targets proved wildly optimistic and, in the end, impossible to meet. Faced with having to require so-called “phantom fuels” that did not exist, the EPA has relied on the law’s waiver provisions, both waiving down the statutory volumes every year to quite nominal levels and offering waiver credits that obviate the need for actual production of the fuels. Thus, the RFS “mandate” has proven completely non-binding.

The annual volume setting process has been an incredibly fraught political high-wire act. Each year it is met with lawsuits from parties who think the obligations require too many or too few gallons of the various fuel types. The litigation and other difficulties have led EPA to miss numerous deadlines,

setting standards as far as three years retroactively. How can we expect an innovative company trying to make fuel from algae or switchgrass or paper waste to bank on a target that is always changing and uncertain from year to year, and which is most likely to be undercut by waiver credits, which are pieces of paper an oil refiner can purchase in lieu of the required gallons? It is no wonder companies have not been able to attract the necessary capital and investment to turn innovative research into development and actually construct the facilities necessary to bring these fuels to market. Even when companies who do have the capital, like POET, have tried to break into cellulosic fuels, they have found the market untenable and have stepped back.

Others testifying here today can provide better insight into these market realities, as well as the regulatory obstacles that have bedeviled the cellulosic industry. I would just highlight one other factor holding back the next generation of fuels that hold such great promise: the continued, unyielding governmental and political support for corn ethanol. The existing corn ethanol industry and the nascent advanced and cellulosic industries are not the same, and their needs from government intervention are not the same. One is a mature industry that has reached scale and market penetration. Let us be honest and acknowledge that if the RFS were to go away tomorrow, corn ethanol as a fuel additive is here to stay, probably at around the current level of nearly 10 percent. But advanced and cellulosic fuels are unlikely to reach competitive parity without government assistance through some combination of massive research and development, tax credits, and market assurance through the RFS.

The last decade has demonstrated quite clearly that complete fealty to the structure that gave rise to first generation biofuels does not translate to success of the next generation. The corn ethanol “bridge” has been built. It is now time to exit the bridge and build the final destination envisioned by the RFS2, one where cleaner biofuels dominate.

The ethanol industry claims that the blend wall is now standing in the way of next generation fuels by preventing the space for new fuels to enter the market, and that the only way to make space is

to increase the availability of high fuel blends such as E15. This simply is not true. Any fuel could be used to meet the current year mandate of 19.29 billion gallons of renewable fuel. Corn ethanol dominates because it is the cheapest alternative. There is no actual mandate for corn ethanol, while there are supposed mandates for advanced and cellulosic fuels. If EPA decided to increase the cellulosic mandate by 7 billion gallons, cellulosic fuels could be blended instead of corn ethanol. This obviously cannot happen given the state of the cellulosic industry, but it is false to state that the blend wall is the problem. Furthermore, if E15 were to become the new standard, it is equally false to state that the extra ethanol demand would be met by cellulosic fuels. More of the relatively cheaper and available corn ethanol would flood in to fill the gap, thereby exacerbating the existing environmental impacts of industrial corn production.

Looking Ahead

The current structure under RFS2 has worked well for corn ethanol. It has failed to stimulate more advanced fuels. The statutory structure, therefore, needs to be overhauled if the goals of the RFS as envisioned by Congress are to be realized. Tinkering around the edges and applying band aids to appease various aggrieved parties will not suffice.

A blueprint for how to stimulate the next generation of biofuels while protecting and enhancing our natural resources exists. Introduced by Congressman Welch, the GREENER Fuels Act (H.R. 5212) reduces reliance on corn ethanol over time to make room for alternatives. It brings statutory mandates for cellulosic and advanced fuels back to reality and makes them binding. That market certainty, combined with an extended timeline, offer the industry the very basic assurances it needs to know that investment will be rewarded and its product will be consumed rather than discarded. By the time the advanced mandate would sunset under the bill in 2037, the industry will have had a real opportunity to reach economic parity to compete with corn ethanol in a market free from mandates.

This legislation also would address many of the unintended environmental consequences of the RFS and failures of the EPA to monitor or address them. Notably, it includes billions of dollars to help private landowners protect and restore wildlife habitat and conservation areas on their lands, including on working farms and ranches. It also would compel EPA to enforce the existing statutory prohibition of producing biofuels from crops grown on recently converted land. The bill is a shining example of how to protect the environment while shifting U.S. biofuel production in a more sustainable direction.

However, in the long term, the National Wildlife Federation does not envision biofuels completely replacing petroleum to fuel our cars and trucks. We believe the country must move to electric vehicles powered by renewable sources such as wind and solar. The true value in developing cleaner biofuel alternatives is to make an immediate improvement in the transport fuel profile as that transition happens, while developing the alternative biofuels that will power aviation and long-range shipping, which cannot be electrified easily with current technology. The RFS has an important role to play as a proving ground and market stimulator to get those fuels up and running.

In closing, I would reiterate that it is so important for Congress to use the clarity of hindsight to assess where we have been in order to inform the action needed to take us where we want to go. The RFS2 was a visionary attempt to stimulate a cleaner future. In the most important aspects, however, it has largely failed. No law is perfect, and long-term visions require periodic course corrections. Now is the time to take stock and put this policy back on track.

Comprehensive reform of the RFS is badly needed. The core tenets of reform from the National Wildlife Federation's perspective are: deemphasizing first-generation, food-based biofuels over time; establishing realistic, binding mandates for truly advanced and cellulosic fuels that can grow to supplant first-generation biofuels; and confronting and reversing the negative impacts to our climate, water, land, and wildlife stemming from biofuel production. These impacts include the conversion of millions of acres of native prairie and other habitats into crop production, additional nutrient and pesticide

pollution of our waters, loss and degradation of wildlife habitat and other contributions to stress on species, as well as massive emissions of soil carbon and other climate impacts. I strongly encourage members of this Committee to endorse the approach embodied in the GREENER Fuels Act and build on this hearing with swift legislative action.

Thank you, and I look forward to your questions.