

Drones & Ag-Gag Laws: How Drones May Be Used to Enforce the Clean Water Act

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Introduction

Advances in drone technology have moved us towards our goal of living in a science fiction society. While controversy has surrounded the United States military's applications of drones in combat,¹ there is nevertheless excitement amongst technophiles about how drones may be incorporated into domestic society.² In 2012, Congress responded to the accelerated emergence of drones in society by passing the FAA Modernization and Reform Act (FMRA), which required the FAA to create comprehensive drone regulations by 2015.³ While both public and private groups are already using drones for a myriad of uses in the environmental field,⁴ the use of drones to monitor concentrated animal feeding operations ("CAFOs") has garnered particular attention and raised controversy.⁵

This paper contends that the newly released drone regulations would allow drones to be used for monitoring CAFO pollution because (1) the current movement to challenge "ag-gag" statutes as unconstitutional has seen success in removing statutory protections allowing CAFOs to operate in secrecy, and (2) because notwithstanding the constitutionality of "ag-gag" laws, there is a tradition of holding all navigable airspace as areas within the public domain. This paper will discuss (I) the need for continued CAFO

¹ Brittany Wright, *Big Brother Watching Mother Nature: Conservation Drones and Their International and Domestic Privacy Implications*, 17 VT. J. ENVTL. L. 138, 138 (2015).

² See Henry H. Perritt, Jr. & Albert J. Plawinski, *One Centimeter over My Back Yard: Where Does Federal Preemption of State Drone Regulation Start?*, 17 N.C. J. L. & TECH. 307, 311-312 (2015).

³ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95.

⁴ Wright, *supra* note 1 at 138.

⁵ Peggy Lowe, *Deploying Drones to Get an Overview of Factory Farms*, NATIONAL PUBLIC RADIO (Jul. 19, 2014, 12:09 PM) <http://www.npr.org/sections/thesalt/2014/07/19/332344201/deploying-drones-to-get-big-picture-of-factory-farms-from-above>.

regulation; (II) the current state of drone laws in the United States; and (III) the legal use of drones to monitor CAFO pollution.

I. The Need for Continued CAFO Pollution Enforcement

CAFOs are large-scale industrial farms where livestock are kept in highly concentrated containment areas for the purposes of harvesting meat, eggs or milk.⁶ The largest CAFOs can house over a million animals at one time.⁷ With such a highly concentrated population of animals in one location, CAFOs contribute to numerous environmental threats including groundwater and surface water pollution.⁸

The Environmental Protection Agency (“EPA”) estimates that CAFOs across the country produce an estimated 500 million tons of animal waste annually.⁹ This amount of urine and feces is equivalent to the amount of sewage created by a major city, but unlike major cities that have advanced waste treatment systems, CAFO waste is commonly placed in holding lagoons until it is periodically sprayed on to surrounding crop fields.¹⁰ The animal waste is rich in nutrients, but is often spread at a rate that far exceeds what the crops can absorb. Thus, incredibly high levels of excess nutrients, as well as pathogens and animal medication residues,¹¹ may leach into groundwater or wash away into surface water.¹² Additionally, holding lagoons may overflow or rupture, further contributing to groundwater and surface water contamination.¹³

⁶ Karl S. Coplan, *Citizen Litigants Citizen Regulators: Four Cases Where Citizen Suits Drove Development of Clean Water Law*, 25 COLO. NAT. RESOURCES, ENERGY & ENVTL L. REV. 61, 92 (2014).

⁷ *Id.*

⁸ CARRIE HRIBAR, UNDERSTANDING CONCENTRATED ANIMAL FEEDING OPERATIONS AND THEIR IMPACT ON COMMUNITIES 1-5 (MARK SCHULTZ) 2010.

⁹ Coplan, *supra* note 6, at 92.

¹⁰ *Id.*

¹¹ *Id.*

¹² HRIBAR, *supra* note 8, at 1-5.

¹³ *Id.*

CAFOs are under the regulation of the Clean Water Act (“CWA”), which is administered by the EPA. The CWA generally requires a discharging CAFO to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the EPA.¹⁴ The CWA allows CAFOs to spread manure across their land only when they hold a permit, and spread according to specific procedures dictated in the permit.¹⁵ CAFOs that land spread without permits, or have discharges that are caused by improper spread are in violation of CWA.¹⁶ However, the CWA may allow for discharges caused by massive rain and flooding if the CAFO is operating in accordance with their NPDES permit.¹⁷ The CWA also contains a citizens suit provision that allows citizens to bring legal action against violators to compel compliance and against the EPA to enforce the CWA.¹⁸

The EPA’s regulations have been historically unenforced,¹⁹ and continued regulation of CAFOs under the CWA is needed. While the citizen enforcement suit provision has provided an avenue for continued polluter regulation,²⁰ the existence in several states of “ag-gag” laws, which makes covert filming while on the property illegal, has made enforcement through citizen suits more difficult.²¹ In an effort to circumvent ag-gag laws, some have suggested the use of drones to document CAFO operations and thus continuously facilitate citizen enforcement against CAFO’s noncompliance through operating the drone in the airspace above the CAFO to take obtain video and photographic evidence of CWA violations.²²

¹⁴ 40 C.F.R. § 122.23 (2013).

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *See* Coplan, *supra* note 6, at 93.

²⁰ *See id.* at 98.

²¹ *See* Lowe, *supra* note 5.

²² *Id.*

II. Drones and Federal Drone Regulations

Today's drones are more than a hobbyist toy, and are instead being used by professional photographers to capture images that were once unobtainable.²³ For about \$1,000 U.S. Dollars, an ordinary consumer can purchase a drone equipped with multiple on board computers, GPS self-guided flight, and a 4k camera.²⁴ Drones can be operated via a smartphone and, despite weighing less than two pounds, transmit flight-footage from a distance of over four miles.²⁵

Drones provide the benefit of an aerial view, without the expense of a manned aircraft, and are already proving useful in the environmental field. Drones have been used to track animal species and monitor the effects of dammed rivers,²⁶ and even collect atmospheric samples and monitor hurricanes.²⁷

Drones are regulated the Federal Aviation Authority ("FAA").²⁸ The FAA evolved out of the Federal Aviation Agency, which was created under the Federal Aviation Act of 1958.²⁹ This act granted the federal government "exclusive sovereignty of airspace of the United States", and charges the FAA to "develop plans and policy for the use of the navigable airspace and assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace."³⁰ In 2012 Congress passed the FAA Modernization and Reform Act (FMRA), which required the

²³ *About Us*, DJI, <http://www.dji.com/company> (last visited Oct. 28, 2016).

²⁴ *Mavic Pro Compact*, DJI STORE, http://store.dji.com/product/mavic-pro?site=brandsite&from=buy_now_bar (last visited Oct. 28, 2016).

²⁵ *Id.*

²⁶ Wright, *supra* note 1, at 141.

²⁷ *Id.* at 141-42.

²⁸ Robert L. Ellis, *Drones & the Law: What You Need to Know*, S.C. LAW. 42, 44 (May 2016).

²⁹ Joshua D. Beard, *Up in the Air the Legal Status of Drones*, MICH. B.J. 20, 21 (Dec. 2015).

³⁰ 49 U.S.C. § 40103 (2016).

FAA to establish drone regulations by September 2015.³¹ Though the FAA missed its September 2015 deadline, the agency did create comprehensive regulations that became effective in August of 2016.³²

The FAA requires that civil drone operators hold a “remote pilot certificate with a small UAS rating”, unless that operator is under direct supervision of a remote pilot certificate.³³ A civil aircraft is any aircraft that is not owned by the United States Government, or being used for commercial purposes.³⁴ In order to obtain a remote pilot certificate, an individual must: (a) be of at least 16 years old; (b) be proficient in English; (c) not have any physical or mental condition that would interfere with safe flight; and (d) demonstrate general aeronautical knowledge by passing an aeronautical knowledge test. Alternatively, if the applicant already holds a manned aircraft pilot certificate, the individual need only complete a training course specific to drone operation.³⁵

Drone operators must additionally maintain rigid standards while operating a drone. These standards include the following:

1. The drone must weigh less than 55 lbs;
2. The operator must operate the drone within visual range of sight unaided by anything other than corrective lenses;
3. Drones may not operate over any person that is not participating in operation of the aircraft, not under a covered structure, and not under a covered stationary vehicle;
4. Drones may only be flown during daylight hours;
5. Groundspeed may not exceed 100 mph;
6. Drones may only carry external loads if they are securely attached; and
7. Altitude may not exceed 400 feet.³⁶

³¹ FAA Modernization and Reform Act of 2012, Pub. L. No. 112-95.

³² 14 C.F.R. § 107.1 (2016).

³³ 14 C.F.R. § 107.12 (2016).

³⁴ 14 C.F.R. § 1.1 (2016).

³⁵ 14 C.F.R. § 107.61 (2016).

³⁶ 14 C.F.R. § 107 (2016).

Additionally, the drone operator must consider the FAA-designated airspace class that the drone is being flown in. Drones flown in Class B, Class C, or Class D airspaces or within the lateral boundaries must first obtain prior authorization from air traffic control.³⁷

Lastly, it is important to note in this discussion that the current federal drone regulations provide a somewhat precarious exception to the credentialing requirements listed above. A remote pilot certificate is not required if “the aircraft is being flown strictly for hobby or recreational purposes.”³⁸ Recreational flyers are thus excepted from much of the above requirements, and are held to a community-based set of safety guidelines set by hobbyist organizations such as the Academy of Model Aeronautics.³⁹

IV. Using Drones to Monitor CAFOs

There is potential for drones to become a highly useful resource for NGOs in monitoring CAFO pollution because: (1) There is ongoing litigation in federal courts challenging the constitutionality of some states’ “ag-gag” laws, and some of these laws have already been declared unconstitutional; and (2) The use of drones would not violate “ag-gag” statutes based on statutes and common law holding that the air is in the public domain.

³⁷ 14 C.F.R. § 107.41 (2016).

³⁸ 14 C.F.R. § 101.41 (2016). It should be noted that, because drone regulations have only recently been released, there are no cases interpreting what “hobby or recreational purposes” means within the context of drone operation. Though as a matter of precaution, any NGO planning to implement drones in enforcing CAFO regulations should obtain a remote pilot certificate.

³⁹ *Recreational Users*, KNOW BEFORE YOU FLY, <http://knowbeforeyoufly.org/for-recreational-users/> (last visited Jan. 1, 2017).

A. Ag-Gag Laws

“Ag-gag” is the nickname given to laws that attempt to stifle the covert filming or documenting of the highly private inner-workings of factory farms.⁴⁰ These “ag-gag” laws were created to protect CAFOs—and their massive profits—after undercover journalists gained employment in factory farms and exposed the animals’ poor living conditions.⁴¹ The similarity amongst all ag-gag statutes is that they seek to prevent conduct such as entering a farm to take pictures or video recordings, as well as applying or obtaining employment under false pretenses in order to covertly document farm activity.⁴² As will be discussed, ag-gag laws exist in several states, and while their details differ, they all seemingly pose the same fundamental threat to First Amendment rights.⁴³

B. Idaho’s Ag-Gag Laws and the First Amendment

Idaho was the first state to have its ag-gag law ruled unconstitutional on grounds that it violated the First Amendment. A person violated the criminal ag gag law of “interference with agricultural production” if that person:

1. Is not an employee of the agricultural production facility but gains access through force, threat, misrepresentation, or trespass;
2. Obtains records of the agricultural production facility through force, threat, misrepresentation, or trespass;
3. Obtains employment with an agricultural production facility by force, threat, or misrepresentation with the intent to cause economic or other injury;
4. Enters an agricultural production facility that is not open to the public and, without the facility owner's express consent or pursuant to judicial process or statutory authorization, makes audio or video recordings of the conduct of an agricultural production facility's operations; or

⁴⁰ Lucy L. Holifield, *Animal Legal Defense Fund v. Otter: Industrial Food Production Simply Is Not A Private Matter*, 12 J. FOOD L. & POL'Y 16, 18 (2016).

⁴¹ *Id.*

⁴² Daniel L. Sternberg, *Why Can't I Know How the Sausage Is Made?: How Ag-Gag Statutes Threaten Animal Welfare Groups and the First Amendment*, 13 CARDOZO PUB. L. POL'Y & ETHICS J. 625, 627 (2015).

⁴³ *Id.*

5. Intentionally causes physical damage or injury to the agricultural production facility's operations, livestock, crops, personnel, equipment, buildings or premises.⁴⁴

Idaho also anticipated the use of drones in monitoring CAFOs in the civil analog to their criminal ag-gag statute, which states that no person or organization may use a drone to “intentionally conduct surveillance of, gather evidence or collect information about, or photographically or electronically record . . . specifically targeted private property”⁴⁵ which includes “[a] farm, dairy, ranch or other agricultural industry.”⁴⁶

The United States Supreme Court in *Ashcroft v. American Civil Liberties Union* stated: “as a general matter, the First Amendment means that government has no power to restrict expression because of its message, its ideas, its subject matter, or its content.”⁴⁷ Further, the Court held in *United States v. Alvarez* that “the Constitution ‘demands that content-based restrictions on speech be presumed invalid ... and that the Government bear the burden of showing their constitutionality’”.⁴⁸ The United States Supreme Court has held that when a statute or regulation either overtly or covertly seeks to restrict the content of the speech, the statute must be held to strict-scrutiny.⁴⁹ For a statute or regulation to be held constitutional under strict-scrutiny, the State must show that “[the] regulation is necessary to serve a compelling state interest and that it is narrowly drawn to achieve that end.”⁵⁰

In *Animal Legal Defense Fund v. Otter*, the district court held that the above Idaho criminal ag-gag law was a content-based restriction on speech because “it only

⁴⁴ I.C. § 18-7042 (2014).

⁴⁵ I.C. §21-213 (2014).

⁴⁶ *Id.*

⁴⁷ *Ashcroft v. Am. Civil Liberties Union*, 535 U.S. 564, 573 (2002).

⁴⁸ *United States v. Alvarez*, 132 S. Ct. 2537, 2544 (2012) (citing *Ashcroft*, 542 U.S. at 660).

⁴⁹ *Boos v. Barry*, 485 U.S. 312, 321 (1988).

⁵⁰ *Boos*, 485 U.S. at 321 (quoting *Perry Educ. Ass'n v. Perry Local Educators' Ass'n*, 460 U.S. 37, 45 (1983)).

targets speech concerning the ‘conduct of an agricultural production facility's operations’ while leaving unburdened other types of speech at agricultural production facilities”.⁵¹ Because this law is content-based, the court held that “it must survive the highest level of scrutiny”.⁵² Strict-scrutiny “is an exacting test” that requires the State to show more than simply a legitimate, reasonable, or praiseworthy justification for their law.⁵³ Instead, “[t]here must be some pressing *public* necessity, some essential value that has to be preserved; and even then the law must restrict as little speech as possible to serve the goal.”⁵⁴ The court held Idaho’s criminal ag-gag law as unconstitutional because it did not further a compelling state interest.⁵⁵ Further, even if the State did have a compelling interest, the law did not achieve this interest in the narrowest way possible.⁵⁶ *Otter* is currently under appeal in the United State Court of Appeals for the Ninth Circuit.⁵⁷

The federal courts have also seen constitutional challenges to other states’ ag-gag laws, including North Carolina, Wyoming, and Utah.⁵⁸ While the constitutionality of these ag-gag laws are still being litigated, they should continue to be subject to strict-scrutiny because they are either overtly or covertly content-specific in the speech they seek to suppress. The Constitution “demands that content-based restrictions on speech be presumed invalid . . . and that the Government bear the burden of showing their constitutionality.”⁵⁹ Historically, the only permissible content-based restrictions have targeted very specific categories of speech, including incitement, obscenity, fighting

⁵¹ *Animal Legal Def. Fund v. Otter*, 118 F. Supp. 3d 1195, 1205 (D. Idaho 2015).

⁵² *Id.* at 1207.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.* at 1208.

⁵⁷ *Otter*, 118 F. Supp. 3d at 1195.

⁵⁸ *Taking Ag-Gag to Court*, ANIMAL LEGAL DEFENSE FUND, <http://aldf.org/cases-campaigns/features/taking-ag-gag-to-court/> (last visited Oct. 29, 2016).

⁵⁹ *Alvarez*, 132 S. Ct. at 2539 (citing *Ashcroft*, 542 U.S. at 660).

words, and child pornography.⁶⁰ The courts should likely hold these other ag-gag laws as unconstitutional because, like in *Otter*, the conduct that these statutes seek to prohibit “actually advance[s] core First Amendment values by exposing misconduct to the public eye and facilitating dialogue on issues of considerable public interest.”⁶¹ Furthermore, “[t]his type of politically-salient speech is precisely the type of speech the First Amendment was designed to protect.”⁶²

The same analysis should additionally be applied to Idaho’s civil ag-gag law that refers specifically to drones. The language in both Idaho’s civil statute and the recently overruled criminal statute has striking similarities.⁶³ This language, as the court in *Otter* ruled, is content-specific because it targets only one type of speech.⁶⁴

While it is difficult to speculate exactly how the appellate courts will handle ag-gag laws, one can foresee additional challenges to other state’s ag-gag laws based on the success already seen in *Otter*. Thus there is hope on the horizon for opponents of ag-gag laws. The results of current litigation may allow for drones to be implemented in monitoring CAFOs without the threat of facing litigation under ag-gag laws.

C. Drones Operating in the Public Airspace

While the overruling of ag-gag laws would make the aerial surveillance of CAFOs far less risky, using drones to monitor CAFOs would not be in violation of most ag-gag laws because of the established notion that the airspace is in the public domain.

⁶⁰ *Id.*

⁶¹ *Otter*, 118 F. Supp. 3d at 1204.

⁶² *Id.*

⁶³ Jeremiah Hudson & Nicholas Warden, *Narrowing the Drone Zone: The Constitutionality of Idaho Code S 21-213*, 57 *ADVOCATE* 23, 25 (2014).

⁶⁴ *Otter*, 118 F. Supp. 3d at 1206.

Many of the current ag-gag statutes criminalize or create civil causes of action for physically entering the farm without permission, or entering the farm under false pretenses and recording.⁶⁵ While this exact approach has not been tested in the courts, it is possible that the use of drones will not violate ag-gag statutes when they are flying overhead.

A federal statute has replaced the traditional idea that property owners possess all the air above their land.⁶⁶ This statute states in relevant parts that: (1) “The United States Government has exclusive sovereignty of airspace of the United States”, and (2) “[a] citizen of the United States has a public right of transit through the navigable airspace.”⁶⁷ Additionally, the United States Supreme Court held that “the air is a public highway”, and holding otherwise would lead to countless trespass suits and prevent developments in the public’s interest.⁶⁸ Many cases have held that property rights are not violated when flights occur in the airspace above them.⁶⁹ For example, the Texas Court of Appeals held that a property owner did not have a trespass suit when a news helicopter hovered over a property to film for a news story.⁷⁰ Some have even argued that the legal right to operate an aircraft in navigable airspace extends all the way down to inches above the ground.⁷¹

If the courts are to say that drones have the same legal rights to occupy the navigable airspace as a private plane or a news helicopter, then drones may be used to monitor CAFOs without violating ag-gag laws. This is because the drones would be operating in the navigable airspace, which is in the public domain, while ag-gag laws

⁶⁵ Sternberg, *supra* note 42, at 625.

⁶⁶ 49 U.S.C. §40103 (2012).

⁶⁷ *Id.*

⁶⁸ U.S. v. Causby, 328 U.S. 256, 260-261 (1946).

⁶⁹ Ellis, *supra* note 28, at 46.

⁷⁰ *Bevens v. Gaylord Broad. Co., L.P.*, No. 05-01-00895-CV, 2002 WL 1582286, at *1 (Tex. App. July 18, 2002).

⁷¹ See Ellis, *supra* note 28, at 42; 49 U.S.C. §40102(a)(32) (2012).

only have the power to restrict physical entry onto a farm. A farm owner would not have a legal cause of action to sue a drone operator under an ag-gag statute because a drone flown in public navigable airspace will not have ever physically entered the property. Thus a drone operator could legally launch a drone from a place outside of the farm, and as long as the operator is operating the drone in accordance with FAA regulations by keeping the drone within eyesight, navigating the drone high above the property while utilizing high definition cameras mounted securely on the drone to capture images. This would arm citizens and non-governmental environmental interest groups with evidence useful for mounting citizen suits against CAFOs in violating of the CWA.

Conclusion

Drones are already being used in environmental regulation,⁷² and there is potential for drones to become a useful tool in monitoring CAFO pollution that may be used to inform citizen suits under the CWA. First, ag-gag statutes have been and should continue to be ruled unconstitutional because they are a content-based restriction on free speech, and the states are unlikely to show that these statutes are narrowly tailored to further a compelling state interest. Second, constitutional arguments aside, drones that are flown in navigable airspace in accordance with FAA regulations would not be in violation of ag-gag statutes because they would be flown in the public domain, without ever physically entering the farm.

⁷² Wright, *supra* note 1, at 141-42.