



United States Department of the Interior

OFFICE OF THE SOLICITOR
Washington, D.C. 20240

JAN 12 2017

IN REPLY REFER TO:

M-37042

Memorandum

To: Director, U.S. Fish & Wildlife Service

From: Solicitor

Subject: Authority of the U.S. Fish and Wildlife Service to Manage Non-Federal Oil and Gas Activities Underlying National Wildlife Refuges

I. INTRODUCTION

The United States Fish & Wildlife Service (“Service”) recently published regulations governing the exercise of non-federal oil and gas rights within units of the National Wildlife Refuge System (“Refuge System” or “System”) located outside the State of Alaska.¹ The regulations are intended to help protect refuge resources, visitors, and public health and safety from the potential impacts of non-federal oil and gas operations located within refuges.

The regulations apply to oil and gas activities associated with any private, state, or tribally owned mineral interest beneath the Service-administered surface estate. They do not apply to activities taking place on non-federally-owned lands located within refuge boundaries (i.e., inholdings). Non-federal oil and gas rights exist within the Refuge System in situations where the oil and gas interest has been severed from the estate acquired by the United States, either because: (a) the United States acquired property from a grantor that did not own the oil and gas interest; or (b) the United States acquired the property from a grantor that excepted the oil and gas interest from the conveyance.

The previous Service regulations relating to non-federal oil and gas operations had remained unchanged for more than 50 years and provided only vague guidance to Service staff and operators. Although the rights of surface-estate owners under applicable state laws are also available to refuge managers, the Service’s new regulations are intended to provide clear operating standards that apply uniformly across the Refuge System. These regulations also respond to the Government Accountability Office’s recommendations that the Service clarify its regulatory authorities over these activities.²

¹ 81 Fed. Reg. 79,948 (November 14, 2016). The regulations went into effect on December 14, 2016.

² In 2003 and 2007, the Government Accountability Office (“GAO”) published two reports on the Service’s oversight of oil and gas activities: Government Accountability Office, “National Wildlife Refuges: Opportunities to Improve the Management and Oversight of Oil and Gas Activities on Federal Lands” (2003); and Government Accountability Office, “Opportunities Remain to Improve Oversight and Management of Oil and Gas Activities on National Wildlife Refuges” (2007). Item 4 of the “Recommendations and Actions” in the 2007 report recommends that the Agency seek “a formal opinion from DOI’s Office of the Solicitor regarding FWS’s authority to issue permits for outstanding mineral rights.”

As explained in the preamble to the regulations, after consulting with the Office of the Solicitor and considering public comments on the proposed rule, the Service concluded that the National Wildlife Refuge System Administration Act, as amended (“NWRSA” or “Administration Act”),³ provides the statutory basis for the regulations. This Opinion provides further explanation and analysis of the legal authorities upon which the Service relied in adopting these regulations. Based on the statutory language and several recent courts of appeals decisions, I concur in the Service’s conclusion that it possesses the requisite legal authority to require permits and to otherwise reasonably regulate the exercise of non-federal oil and gas rights located within the Refuge System outside of Alaska.⁴

II. DISCUSSION

The United States does not own subsurface mineral rights underlying most of the Refuge System. The owners of those mineral estates, subject to any limitations imposed by state or federal law, generally have legal rights to develop their mineral resources. Based on Service data from 2011, there are over 5,000 oil and gas wells on 107 refuges in a total of 599 refuge units.⁵ Of the wells present on refuges, 1,665 actively produce oil and gas. These numbers include some federally owned minerals that are administered by the Bureau of Land Management (“BLM”) and that are not the subject of the rulemaking or of this Opinion,⁶ but the majority of these wells and other operations are non-federal.⁷

Prior to promulgation of the new regulations, the Service lacked comprehensive regulations pertaining to non-federal oil and gas operations within the Refuge System, including a requirement for notice or a permit from the Service before commencement of operations. The Service determined that updating its regulations was necessary under the National Wildlife Refuge System Administration Act, as amended in 1997 by the National Wildlife Refuge System

³ 16 U.S.C. §§ 668dd-ee.

⁴ Operations on refuges in Alaska are not subject to these regulations but remain subject to the provisions of Title XI of the Alaska National Interest Lands Conservation Act (“ANILCA”), 16 U.S.C. § 3161 *et seq.*, and the Department’s implementing regulations and standards found at 43 C.F.R. part 36. Additionally, section 22(g) of the Alaska Native Claims Settlement Act of 1971 (“ANCSA”) (43 U.S.C. § 1621(g)) and its implementing regulations found at 50 C.F.R. § 25.21 continue to apply to lands conveyed to Alaska Native Corporations that are within the boundaries of a National Wildlife Refuge in existence on the date of enactment of ANCSA. The preamble further explains that the performance-based standards of this rule may be used as guidance in determining how an operator would meet the various requirements of ANILCA and ANCSA to protect refuge resources and uses. 81 Fed. Reg. at 79,957. This Opinion therefore does not address the extent to which the Service’s regulatory authority under the Administration Act applies to non-federal oil and gas operations underlying refuge units in Alaska.

⁵ 80 Fed. Reg. 77,201.

⁶ BLM under the authority of the Mineral Leasing Act and the Mineral Leasing Act for Acquired Lands of 1947 has the primary responsibility for leasing and regulating the use of the federally owned mineral estate. Regulations implementing this authority and specific to minerals underlying Refuge System lands are found at 43 C.F.R. § 3102.5-5-4, which include requirements that any such leases shall be subject to stipulations prescribed by the Service. Except where drainage of the federal oil and gas estate is taking place from wells drilled on adjacent lands, current BLM regulations generally prohibit the leasing of federal oil and gas holdings underlying the Refuge surface estate. *See* 43 C.F.R. § 3101.5-1.

⁷ 80 Fed. Reg. 77,201.

Improvement Act,⁸ “to protect refuge resources and uses while ensuring that mineral rights holders have reasonable access to develop their non-Federal oil and gas.”⁹

A. State Law Authority

Non-federal mineral rights, like other private property within the boundaries of Refuge units, are generally governed by state law, including laws specifically addressing the respective rights of owners of split estates. These laws and the applicable procedures vary from state to state.

State laws addressing split estates are generally based on one of two primary doctrines: “reasonable use” and “accommodation.”¹⁰ Under the reasonable-use doctrine, the owner of the mineral right may use as much of the surface as is reasonably necessary. The mineral owner’s rights are generally superior to the surface owner’s rights. “Reasonable use” may require no more than that mineral estate holders notify the surface estate holder of their plans before commencing operations. A growing number of states have adopted the “accommodation doctrine,” which adds to the traditional “reasonable use” test. The accommodation doctrine states that where mineral estate use and access interferes with an existing surface use, the mineral owner should minimize its impacts to the surface. If alternative extraction methods are available (technologically feasible) and reasonable (economically feasible), a mineral owner must use them to avoid disturbance of existing surface uses.

The remainder of this Opinion addresses the Service’s authority under federal law. But in addition to its federal authorities, the Service also has all the rights of a surface landowner under applicable state law. Regional and Field Solicitors are available to work with Service personnel to determine how best to utilize such state laws to provide additional means or measures to protect refuge resources.

B. Federal Authority Generally

Irrespective of state law regarding the rights of subsurface mineral owners, Congress, as discussed below, has provided the Secretary the authority to manage federal property for specific purposes. Pursuant to the Supremacy Clause of the Constitution, this authority may supersede conflicting state laws when necessary to protect the federal property interest: the “Constitution, and the Laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every state shall be bound thereby, anything in the constitution or laws of any state to the contrary notwithstanding.”¹¹

⁸16 U.S.C. § 668dd (2016). Throughout this memo, “NWRSA” or “Administration Act” refers to the Act as amended, except where described as the “1966 Administration Act,” for the original National Wildlife Refuge System Act of 1966, or the “1997 Improvement Act,” which refers to those particular acts.

⁹ 81 Fed. Reg. 79,948.

¹⁰ The State of Louisiana uses a separate doctrine called the “correlative rights” doctrine, under which the owner of the surface and mineral estates must respect the rights of the other (mutuality); the mineral owner has the right to use as much of the surface as is reasonably necessary to carry out his operation, and at the conclusion of the operations, the surface must be restored as nearly as practicable to its original condition. *See* Andrew C. Mergen, *Surface Tension: The Problem of Federal/Private Split Estate Lands*, 33 *Land & Water L. Rev.* 419, 432 (1998).

¹¹ Art. VI, § 2.

The power of Congress to enact the NWRSA is based on its authority pursuant to the Property Clause, which provides that “Congress shall have power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States.”¹² The Supreme Court has long recognized that Congress exercises plenary power over the use of and activities on federal property. The capacious scope of this authority reflects the United States’ dual role as both proprietor and regulator of federal lands. In *Camfield v. United States*, the Supreme Court recognized this dual source of authority, explaining that in addition to having “the power of legislating for the protection of public lands,” the United States “has the same right to insist on its proprietorship . . . as an individual has to claim” control of private property.¹³

In *Camfield* and *United States v. Alford*, the Supreme Court long ago held that Congress’s power under the Property Clause enables it to enact needful laws respecting the public lands even when those laws affect or restrict the exercise of private property rights.¹⁴ In *Kleppe v. New Mexico*, considered to be the leading modern case on Property Clause authority, the Court held that Congress has the power to enact needful regulations respecting the public land that apply beyond the land itself and to delegate the authority to do so to the Secretary.¹⁵ Although *Kleppe* primarily involved the authority to protect wildlife on the public lands and, in the process, to preempt conflicting state law,¹⁶ the Court also noted that “regulations under the Property Clause may have some effect on private lands not otherwise under federal control.”¹⁷ The Court “repeatedly observed that ‘the power over the public land . . . entrusted to Congress is without limitations.’”¹⁸ This “complete power” to control and regulate federal property, is to be construed broadly and extends to the protection of wildlife on federal property, as well as to the regulation of activities on private lands or regulation of privately owned interests that threaten federal property.¹⁹ Thus, under the Property Clause, Congress may grant to the Secretary the authority to regulate non-federal activities and restrict property owners’ activities if such regulations are necessary to protect federal lands or resources for the intended use and purposes established by Congress. The question here is whether Congress has in fact done so in the context of the exploration and development of non-federal oil and gas interests underlying federally administered Refuge System lands.

C. The Administration Acts

In 1966, Congress established the Refuge System through section 4(a) of what is commonly known as the National Wildlife Refuge System Administration Act of 1966 (“1966

¹² Art. IV, § 3, cl. 2.

¹³ 167 U.S. 518, 526 (1897). The dual nature of the Federal Government’s role in managing public lands distinguishes the exercise of Property Clause authority from the exercise of authority under the enumerated powers in Article I, Section 8, of the Constitution, including the Commerce Clause.

¹⁴ *Id.*; *United States v. Alford*, 274 U.S. 264 (1927).

¹⁵ *Kleppe v. New Mexico*, 426 U.S. 529, 536 (1976).

¹⁶ *Id.* at 545.

¹⁷ *Id.* at 546 (citations omitted).

¹⁸ *Id.* at 539 (1976) (quoting *United States v. San Francisco*, 310 U.S. 16, 29 (1940)).

¹⁹ *Id.* at 540–41; 274 U.S. 264; *Camfield*, 167 U.S. at 526. See generally Peter A. Appel, *The Power of Congress “Without Limitation”: The Property Clause and Federal Regulation of Private Property*, 86 MINN. L. REV. 1 (2001).

Administration Act”).²⁰ Congress then substantially amended that act in the 1997 National Wildlife Refuge System Improvement Act.

The Refuge System is a comprehensive system of lands devoted to wildlife conservation and management. It is the only system of federal lands managed specifically for the conservation of fish, wildlife, plants, and their habitats. To accomplish these objectives, the 1966 Administration Act prohibited the use of any area within the system except where permitted or based on other federal authority:

No person shall disturb, injure, cut, burn, remove, destroy, or possess any real or personal property of the United States, including natural growth, in any area of the System; or take or possess any fish, bird, mammal, or other wild vertebrate or invertebrate animals or part or nest or egg thereof within any such area; or enter, use, or otherwise occupy any such area for any purpose; unless such activities are performed by persons authorized to manage such area, or unless such activities are permitted under subsection (d) of this section or by express provision of law, proclamation, Executive order, or public land order establishing the area, or amendment thereof....²¹

The referenced subsection (d) is the Service’s authority to promulgate regulations:

(1) The Secretary is authorized, under such regulations as he may prescribe, to—

(A) permit the use of any area within the System for any purpose, including but not limited to hunting, fishing, public recreation and accommodations, and access whenever he determines that such uses are compatible with the major purposes for which such areas were established...; and

(B) permit the use of, or grant easements in, over, across, upon, through, or under any areas within the System for purposes such as but not necessarily limited to, powerlines, telephone lines, canals, ditches, pipelines, and roads, including the construction, operation, and maintenance thereof, whenever he determines that such uses are compatible with the purposes for which these areas are established.²²

Although Congress amended the 1966 Administration Act by the 1997 Improvement Act, it left unchanged this authority to promulgate regulations.²³

²⁰ Act of October 15, 1966, Pub. L. No. 89-669, 80 Stat. 926, codified as amended in various subsections of 16 U.S.C. § 668dd.

²¹ 16 U.S.C. § 668dd(c).

²² 16 U.S.C. § 668dd(d)(1).

²³ Act of October 9, 1997, Pub. L. No. 105-57, 111 Stat. 1252, codified as amended in various subsections of 16 U.S.C. § 668dd. In report language accompanying the legislation, Congress explained:

The [Refuge System] remains the only major Federal public lands system without a true “organic” act. . . . The [1997 Improvement Act] amends and builds upon the [1966 Administration Act] in a manner that provides an organic act for the System similar to those which exist for other public lands. Its principal focus is to establish clearly the conservation mission of the System, provide clear Congressional guidance to the Secretary for management of the System, provide a mechanism for unit-specific refuge planning, and give refuge managers clear direction and

In the 1997 Improvement Act, Congress enacted various additional provisions including establishment of the Refuge System mission: “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”²⁴ The 1997 Improvement Act directs the Secretary of the Interior, in administering the System, to:

- Provide for the conservation of fish, wildlife, and plants, and their habitats within the Refuge System;
- Ensure that the biological integrity, diversity, and environmental health of the Refuge System are maintained for the benefit of present and future generations of Americans;
- Ensure that the mission of the Refuge System and the purposes of each refuge are carried out;
- Ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the Refuge System are located;
- Assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the Refuge System and the purposes of each refuge;
- Recognize compatible wildlife-dependent recreational uses as the priority general public uses of the Refuge System through which the American public can develop an appreciation for fish and wildlife;
- Ensure that opportunities are provided within the Refuge System for compatible wildlife-dependent recreational uses; and
- Monitor the status and trends of fish, wildlife, and plants in each refuge.²⁵

The 1997 Improvement Act also includes an “emergency power” provision that underscores the broad grant of authority made to the Secretary to protect the public and refuge resources:

Notwithstanding any other provision of this Act, the Secretary may temporarily suspend, allow, or initiate any activity in a refuge in the System if the Secretary determines it is necessary to protect the health and safety of the public or any fish or wildlife population.²⁶

To carry out the newly established mission and these various statutory directives, the 1997 Improvement Act added a broad new authorization to “[i]ssue regulations to carry out this Act.”²⁷ As previously noted, it also left unchanged the provision of the 1966 Administration Act

procedures for making determinations regarding wildlife conservation and public uses of the System and individual refuges.

H.R. Rep. No. 105-106 at 3 (1997).

²⁴ 16 U.S.C. § 668dd(a)(2).

²⁵ 16 U.S.C. § 668dd(a)(4) (“In administering the System, the Secretary shall ...”).

²⁶ 16 U.S.C. § 668dd(k).

²⁷ 16 U.S.C. § 668dd(b)(5).

that authorized the issuance of regulations to “permit the use of any area within the System for any purpose.”²⁸

When Congress exercised its broad Property Clause power to enact the 1997 Improvement Act, it thus established new directives for the Secretary to preserve and protect the Refuge System, and expanded rather than diminished its existing rulemaking authorities. Congress buttressed, rather than restricted, the Department’s authority over refuges; the Department can exercise that authority, which is both proprietary and regulatory in nature, in numerous ways, including by developing comprehensive refuge plans,²⁹ engaging in land-management activities,³⁰ or promulgating regulations.³¹ Nothing on the face of the statute expressly limits, implies, or even suggests that the authority to regulate the use of lands within the Refuge System was intended to exempt from reasonable regulations the exploration for, or development of, non-federal oil and gas rights. Rather, the statutory language covers all uses, and the substantive management directives that Congress imposed by the 1997 Improvement Act, by their own terms, apply to any use of the federal surface estate, including those uses by holders of non-federal oil and gas rights.

The Service’s new regulations governing the exercise of non-federal oil and gas rights within the Refuge System fall well within the broad authority over federally-owned and administered refuge property provided by the 1966 Administration Act and the 1997 Improvement Act.³² The new regulations apply to operators “within the boundaries of the refuge to the extent necessary to protect those property interests.”³³ And they directly relate to the Service mission described above, in particular the conservation of refuge resources, the maintenance of biological integrity and environmental health, and effective cooperation with adjoining property owners.³⁴ The final rule and the associated environmental impact statement discussed in detail the potential impacts of oil and gas operations in refuges, which the regulations seek to avoid or minimize.³⁵ The permit requirement and the other processes set forth in the regulations ensure that the necessary cooperation and coordination occur.³⁶

Thus, the Service’s conclusion that the new regulations are within its authority to issue regulations under the Administration Act is well grounded in the broad directives of both the 1996 Administration Act and the 1997 Improvement Act. In light of the conservation mandate that Congress has imposed for the Refuge System—first through the 1966 Administration Act and later reiterated and made more explicit through the 1997 Improvement Act—the Service has

²⁸ 16 U.S.C. § 668dd(d)(1)(A).

²⁹ 16 U.S.C. § 668dd(e)(1).

³⁰ 16 U.S.C. § 668dd(d).

³¹ 16 U.S.C. § 668dd(b)(5).

³² In this regard, the statutory authority of the Service is substantially similar to that of National Park Service, which since 1979 has regulated the exercise of non-federal oil and gas rights with the Park System on the basis of its authority to issue regulations “necessary or proper for the use and management of System units” (54 U.S.C. § 100751). *See infra* National Park Service case-law discussion in section II.F.

³³ 50 C.F.R. § 29.40(b).

³⁴ 16 U.S.C. § 668dd(a)(4).

³⁵ 81 Fed. Reg. 79,951.

³⁶ *Id.* at 79,955.

reasonably concluded that it has the statutory authority to promulgate these regulations for the use of the federally-owned-and-administered surface estate.³⁷

D. Judicial Precedent

Several relatively recent appellate court decisions support this interpretation of the Administration Acts. In *Burlison v. United States*,³⁸ the Sixth Circuit held that the Service's authority to permit the use of roads on refuge lands included the power to reasonably regulate a reserved easement within a refuge:

We do conclude, however, that the Fish and Wildlife Service may legitimately exercise the sovereign police power of the federal government in regulating the easement. Section 668dd(d)(1)(B) delegates the power to the Secretary of the Interior (and the Fish and Wildlife Service) "under such regulations as he may prescribe," to "permit the use of ... any areas within the System for purposes such as . . . roads."³⁹

The Sixth Circuit held that the Service may reasonably regulate a reserved easement within a refuge, based on the authority provided by the 1966 Administration Act. In that case, the court first found that the plaintiffs owned a reserved easement affording them the right to use a road in the Lower Hatchie National Wildlife Refuge, Tennessee. The question then was whether the Service could regulate the plaintiffs' use of their easement. The court began its analysis by finding that regulation of the easement was clearly within the federal Property Clause power described in *Kleppe*: "the holding of *Kleppe* is sufficiently broad to authorize Congressional regulation of private-property interests that are also located on public land."⁴⁰ Notably, the court's main support for this proposition was an Eighth Circuit case, *Duncan Energy Company v. United States Forest Service*, which held that the Forest Service "has the authority to require approval of surface-use plans by holders of mineral rights."⁴¹ The court in *Burlison* equated the two situations:

Although the surface national forest formed the servient estate and the mineral rights formed the dominant estate, the Eighth Circuit determined that Forest Service regulations issued under a federal law enacted pursuant to the Property Clause gave the Service the power to regulate surface access to private mineral rights. *Id.* at 588-89. Likewise, Congress has the power to regulate access in this case by holders of the dominant estate, i.e., Plaintiffs-Appellees, to the servient estate, i.e., the parts of the Lower Hatchie National Wildlife Refuge comprised of the Sullivan and Rice tracts.⁴²

In analyzing the Service's statutory authorities, the court initially acknowledged that there is some grammatical ambiguity in section 668dd(d)(1)(B) (which is substantively unchanged from the text used in the 1966 enactment). The phrase "permit the use of, or grant easements in, over,

³⁷ While this opinion only addresses the legal bases for the regulations actually promulgated by the Service, the Service likely would have the authority to promulgate broader regulations akin to those recently issued by the National Park Service, given the similarity between their authorities (*see supra* n.32). *See* 81 Fed. Reg. 77,972 (Nov. 4, 2016).

³⁸ 533 F.3d 419 (6th Cir. 2008).

³⁹ *Id.* at 438.

⁴⁰ *Id.* at 433.

⁴¹ *Id.* at 432, citing *Duncan Energy Co. v. United States Forest Service*, 50 F.3d 584, 588-89 (8th Cir. 1995).

⁴² *Id.* at 432-33.

across, upon, through, or under any areas” is unclear as to whether the Service may permit the use of easements or the use of areas. While the court found the legislative history to be inconclusive, the court concluded that the better reading is that “use” refers to “areas,” so that the provision includes an authority to “grant easements” and an authority to “permit the use of . . . areas.”⁴³ Having resolved that ambiguity, it then concluded that the “grant easements” portion of this authority did not in itself allow the regulation of a previously reserved easement, nor did it preempt state property law.⁴⁴

The court then held unequivocally with respect to roads within any area of the Refuge System that the Service’s authority to permit the use of any area within the Refuge System includes such regulatory authority over an existing land-use authorization, concluding that:

inherent in the Secretary of the Interior’s power “under such regulations as he may prescribe” to “permit the use of . . . any areas within the System for . . . roads,” is his power to regulate a preexisting easement in a road. In *Kleppe*, the Supreme Court reaffirmed a long-existing comparison between the federal government’s powers under the Property Clause and the state’s inherent police powers: “[T]he general government doubtless has a power over its own property analogous to the police power of the several states, and the extent to which it may go in the exercise of such power is measured by the exigencies of the particular case.” 426 U.S. at 540 (quoting *Camfield*, 167 U.S. at 525.) [sic] Thus, if the regulation of the easement would be a valid exercise of the state police power, then it must also be a legitimate exercise of the Secretary of the Interior’s authority to permit the use of a road within the scope of regulations enacted pursuant to the Refuge Act.⁴⁵

As a result, the Sixth Circuit concluded that “the Fish and Wildlife Service may impose reasonable regulations on the use of Plaintiffs-Appellees’ common-law easement.”⁴⁶

Although *Burlison* did not deal with mineral interests, its reasoning extends to the regulation of non-federal oil and gas rights with the Refuge System. First, as discussed above, it expressly relied on the *Duncan Energy* decision, which upheld the Forest Service’s authority to regulate non-federal oil and gas rights on the basis of statutory authority that is also very similar to that of the NWRSA:

Under the Bankhead-Jones Farm Tenant Act, Congress directed the Secretary of Agriculture “to develop a program of land conservation and land utilization.” . . . The Act directs the Secretary to make rules as necessary to “regulate the use and occupancy” of acquired lands and “to conserve and utilize” such lands. . . . The Forest Service, acting under the Secretary’s direction, manages the surface lands here as part of the National Grasslands, which are part of the National Forest System. . . . Congress has given the Forest Service broad power to regulate Forest System land.⁴⁷

⁴³ *Id.* at 434-35.

⁴⁴ *Id.* at 433-38.

⁴⁵ *Id.* at 439, quoting 16 U.S.C. § 668dd(d)(1)(B).

⁴⁶ *Id.* at 440.

⁴⁷ *Duncan Energy Co. v. United States Forest Serv.*, 50 F.3d 584, 589 (8th Cir. 1995) (citations omitted). In *Duncan Energy*, the Forest Service’s authority to regulate non-federal oil and gas rights was predicated upon regulations it

Second, the Service’s 1966 regulatory authority that was the subject of *Burlison* expressly extends beyond roads, including all “purposes *such as but not necessarily limited to* powerlines, telephone lines, canals, ditches, pipelines and roads.”⁴⁸ Many of the expressly listed items are likely to be present in oil and gas operations, and the non-exclusive catch-all language covers the remaining elements of such operations. Finally, while the *Burlison* opinion did not discuss the separate and broader regulatory authority granted by the 1997 Improvement Act,⁴⁹ that authority can only be read as strengthening *Burlison*’s holding.

The U.S. Court of Appeals for the Fifth Circuit followed *Burlison* in another case confirming the Service’s ability to regulate access and use of refuge lands by holders of valid interests in land. In *School Board of Avoyelles Parish v. United States Department of the Interior*,⁵⁰ the School Board administered an enclosed estate within the refuge and under Louisiana property law was entitled to a right of passage over neighboring property to the nearest public road. The Service did not dispute that a right to cross refuge lands existed, but asserted it could condition such use, and imposed permit limits on the times of day and types of vehicles that could use the right-of-way to access the enclosed estate. The court upheld the Service’s authority to require a permit and to impose reasonable conditions for “any person entering a national wildlife refuge” even where that person held property rights afforded under the laws of Louisiana.⁵¹ Citing *Burlison* and a series of Supreme Court and circuit court cases interpreting the Property Clause, the Fifth Circuit held that requiring a permit for entry and use, and imposing reasonable restrictions on the exercise of the non-federal property rights, was well within federal authority under the Property Clause.

Although the 1966 Administration Act does not specifically address the extent to which the Service may restrict the use of an easement, it makes clear that the Service may regulate entry into the physical boundaries of refuge lands.⁵² Thus the court found that the Service’s regulations unambiguously required the School Board to obtain a permit. The court noted that “the School Board’s servitude is a property right, but it is one of *use*; the School Board does not own fee simple in the swath of land constituting its pathway through the refuge.”⁵³ As a result, the court, citing *Burlison*, *Kleppe*, and other cases, found that the restrictions on the exercise of the non-federal property right were well within federal authority under the Property Clause.

had promulgated under this Act. As discussed *infra*, section II.F., in *Minard Run Oil Company v. United States Forest Service*, 670 F.3d 236 (3rd Cir. 2011), the Third Circuit found that the Forest Service did not have the authority to require permits for oil and gas development. In that case, the Forest Service had relied on a different acquisition authority (the Weeks Act), and had not promulgated regulations for administering such lands, including the management of non-federal oil and gas rights. By contrast, in *Burlison* and *Avoyelles Parish*, the Fish and Wildlife Service had the statutory authority to issue regulations and had in fact done so, and such regulations could require permits for the exercise of rights-of-way. Under the same analysis, the Service has the authority to promulgate regulations to require permits for the exercise of non-federal oil and gas development on areas within the Refuge System, which it has now done.

⁴⁸ 16 U.S.C. § 668dd(d)(1)(B) (emphasis added).

⁴⁹ The opinion briefly mentions section 668dd(b)(5) in its “Legal Background” section, 533 F.3d at 425, but does not mention it again.

⁵⁰ 647 F.3d 570 (5th Cir. 2011).

⁵¹ *Id.* at 581 (citing 50 C.F.R. § 26.22(b)). *Avoyelles Parish* cites 16 U.S.C. § 668dd(c) and (d), which were part of the original 1966 Administration Act.

⁵² *Id.*

⁵³ *Id.* (emphasis in original).

Finally, it held that, to the extent that Louisiana law would permit the use in violation of the Service's regulations, it would be preempted by federal law.⁵⁴

E. Migratory Bird Conservation Act and 1986 Opinion

The 1929 Migratory Bird Conservation Act ("MBCA")⁵⁵ preceded the NRWSAA as a source of authority for the Service to acquire lands that would become refuges. When Congress enacted the 1966 Administration Act, all refuge areas, including those acquired under the MBCA, became part of the National Wildlife Refuge System.⁵⁶

In a 1986 memorandum, the Associate Solicitor, Division of Conservation and Wildlife ("1986 Opinion"), relied on a provision of the MBCA to conclude that the Service lacked the authority to adopt regulations requiring permits for access by holders of mineral interests, unless such authority was specifically stated in the deed by which the United States acquired title to the surface estate. The 1986 Opinion was recently withdrawn,⁵⁷ but because it is the basis for the primary arguments that the Service lacks the necessary authority, I address it below.

The 1986 Opinion was premised on a provision of the MBCA that provides:

The Secretary of the Interior may do all things and make all expenditures necessary to secure the safe title in the United States to the areas which may be acquired under this subchapter, but no payment shall be made for any such areas until the title thereto shall be satisfactory to the Attorney General or his designee, but the acquisition of such areas by the United States shall in no case be defeated because of rights-of-way, easements, and reservations which from their nature will in the opinion of the Secretary of the Interior in no manner interfere with the use of the areas so encumbered for the purposes of this subchapter, but such rights-of-way, easements, and reservations retained by the grantor or lessor from whom the United States receives title under this subchapter or any other Act for the acquisition by the Secretary of the Interior of areas for wildlife refuges shall be subject to rules and regulations prescribed by the Secretary of the Interior for the occupation, use, operation, protection, and administration of such areas as inviolate sanctuaries for migratory birds or as refuges for wildlife; and it shall be expressed in the deed or lease that the use, occupation, and operation of such rights-of-way, easements, and reservations shall be subordinate to and subject to such rules and regulations as are set out in such deed or lease or, if deemed necessary by the Secretary of the Interior, to such rules and regulations as may be prescribed by him from time to time.⁵⁸

The 1986 Opinion interpreted this provision to mean that reserved mineral interests, and access to those interests, could *only* be regulated if the deed for the land either expressly stated the

⁵⁴ *Id.* at 582.

⁵⁵ 16 U.S.C. § 715 *et seq.*

⁵⁶ As of the end of Fiscal Year 2015, approximately 31.3 percent of the total 8,100,204.93 acres of federal lands and interests in lands in 252 of the Nation's approximately 560 National Wildlife Refuges have been purchased under authority of the MBCA. 81 Fed. Reg. 79,951. The Service has indicated that it will respect applicable deed conditions, but the rule requirements will apply to the extent that they do not conflict with such deed conditions, which likely will be the situation in most cases.

⁵⁷ On November 2, 2016, this 1986 Opinion was withdrawn by the Associate Solicitor for Parks and Wildlife because it did not reflect subsequent statutes and court decisions.

⁵⁸ 16 U.S.C. § 715e.

Service regulations that would apply, or contained an express statement that the land would be subject to regulations adopted from time to time.

That reading, however, is too narrow in that it fails to take into account the Service's rights under state law, an applicable provision of the 1966 Act, and the 1997 amendments to the NWRSA. First, as discussed above, nothing in the MBCA purports to nullify the Service's state law rights that, depending on the state, may afford the Service a range of options for protecting refuge resources. Second, the 1986 Opinion, in addressing the 1966 Administration Act, did not address the regulatory authority granted in section 668dd(d)(1), which vested the Secretary with broad authority to permit the use of any area within the Refuge System.⁵⁹ Finally, the amended NWRSA brought all lands within the Refuge System under one comprehensive statutory umbrella. The 1997 amendment authorizes the Secretary to promulgate regulations "to permit the use of any area within the System for any purpose"⁶⁰ to ensure consistency with the mission of the Refuge System and the purposes for which each refuge was established. All "areas within the System" are subject to the Secretary's regulatory authority under the NWRSA, as discussed in the previous section.⁶¹ Thus, the 1986 Opinion's conclusion, that lack of deed language contemplating regulation precludes the Service from imposing any permit requirement, is based on incomplete analysis.⁶² Deed terms should be considered in specific cases if an applicant believes that they control or otherwise limit the applicability of any regulatory provision, but the Service possesses sufficient and broad authority to regulate access to Refuge lands and use of reserved rights.

Accordingly the Service possessed the requisite authority to issue its final rule, and the 1986 Opinion was properly withdrawn.⁶³

F. Case law related to other agencies' efforts to regulate non-federal oil and gas rights

In addition to *Duncan Energy*, discussed above, there have been several other reported cases dealing with other federal land-managing agencies' efforts to regulate oil and gas operations.

In 1978, the National Park Service promulgated regulations governing the exercise of non-federal oil and gas rights within units of the National Park System.⁶⁴ These regulations are an exercise of the broad regulatory authority that Congress granted to the Secretary to "prescribe such regulations as [she] considers necessary or proper for the use and management of System

⁵⁹ *Id.* at 5-7.

⁶⁰ 16 U.S.C. § 668dd(d)(1)(A).

⁶¹ 16 U.S.C. § 668dd(d)(1)(B)

⁶² The 1986 Opinion was apparently triggered in part by *Caire v. Fulton*, 1986 U.S. Dist. LEXIS 31049 (W.D. La. 1986), an unpublished district court case. In *Caire*, however, the United States had expressly agreed during eminent-domain proceedings for the land at issue that it would delete a deed provision authorizing Service regulation of oil and gas interests not being acquired. It therefore appears to be of limited precedential value, and in any event the Fifth Circuit's decision in *Avoyelles Parish* is the controlling authority to apply in that circuit. Moreover, even if the MBCA provisions did limit the applicability of the NWRSA authority, those limits would apply only to lands acquired under that Act. See *supra* n.56.

⁶³ The Service has indicated that it will respect applicable deed conditions, but the rule requirements will apply to the extent that they do not conflict with such deed conditions, which likely will be the situation in most cases. 81 Fed. Reg. 79,951.

⁶⁴ 43 Fed. Reg. 57,825 (Dec. 8, 1978).

units.”⁶⁵ In many cases, that authority is supplemented by specific regulatory provisions in the enabling statute for a particular unit, but the Park Service applies its system-wide non-federal oil and gas regulations regardless of whether such a provision exists for a particular unit.⁶⁶

The prior Park Service regulations were challenged twice by the private mineral owners at Padre Island National Seashore, Texas, and were upheld as a valid exercise of the Park Service’s regulatory authority. In the first case, filed in the mid-1990s, the district court found the challenge time-barred, but went on to also find that the broad language in the National Park Service Organic Act not only “authorized the Secretary to promulgate regulations for the purpose of preserving and protecting National Parks, but also directed [that] the Parks be managed to achieve that purpose unless otherwise directly and specifically ordered by Congress.”⁶⁷ It noted language authorizing the National Park Service to “promote and regulate” the National Park System “by such means and measures as to conform to [its] fundamental purpose” as well as the above-quoted authority to prescribe “necessary or proper” regulations.⁶⁸ The district court ruled that the regulation of outstanding mineral rights was authorized by these provisions.⁶⁹ Though instructive, this district court opinion was ultimately of little precedential value, because on appeal, the Fifth Circuit affirmed solely on the basis that the claims were time-barred, and did not reach the other issues.⁷⁰

Almost fifteen years later the same mineral owners again challenged the application of the Park Service’s regulations to their mineral estate—this time challenging an Oil and Gas Management Plan for the national seashore that described “sensitive resource areas” where oil and gas exploration and development activities were subject to greater oversight or even effectively foreclosed. In 2011, the Fifth Circuit (this time reversing a district court decision against the National Park Service), definitively upheld the application of the Park Service’s regulations.⁷¹ The court first cited *Kleppe* and *United States v. San Francisco*⁷² for the “basic” proposition that Congress’s power over federal lands “is without limitations.” The court acknowledged that the Park Service’s “normally broad regulatory authority over park lands” could potentially have been limited by statutory language in the national seashore’s enabling act, which reflected certain agreements between the United States and the state, but went on to hold that none of that language actually limited the Park Service’s authority or excepted the mineral owners from the Park Service’s lawful regulations.⁷³

⁶⁵ 54 U.S.C. § 100751.

⁶⁶ The National Park Service recently updated these regulations with a final rule issued shortly before the Service’s. 81 Fed. Reg. 77,972 (Nov. 4, 2016). The National Park Service regulations are codified at 36 C.F.R. pt. 9, subpart B.

⁶⁷ *Dunn-McCampbell Royalty Interest v. National Park Service*, 964 F. Supp. 1125, 1133 (S.D. Tex. 1995) (citing what is now 54 U.S.C. § 100101(b)), *aff’d on other grounds*, 112 F.3d 1283 (5th Cir. 1997).

⁶⁸ *Id.* (citing what are now 54 U.S.C. §§ 100101(a) and 100751).

⁶⁹ As to state law, the district court found that while Congress had not preempted the entire field, state law was preempted to the extent Texas mineral law would allow unrestricted access that precludes the agency from carrying out statutorily mandated duties. *Id.* at 1138.

⁷⁰ 112 F.3d 1283 (5th Cir. 1997).

⁷¹ *Dunn-McCampbell Royalty Interest v. National Park Service*, 630 F.3d 431 (5th Cir. 2011).

⁷² 310 U.S. 16 (1940).

⁷³ 630 F.3d at 433.

Note that the mission of the Refuge System as stated in the 1997 Improvement Act⁷⁴ is very similar to the language in the National Park Service Organic Act relied on in these cases.⁷⁵ The 1997 Improvement Act also stipulates that each unit of the Refuge System shall be managed to fulfill the Refuge System mission, as well as the specific purposes for which that unit was established,⁷⁶ which is similar to the Park Service requirement with regard to areas within the National Park System.⁷⁷ The Secretary also has explicit authority to issue regulations for the governance of the Refuge System in accordance with its mission,⁷⁸ just as the Park Service can in carrying out its mission.⁷⁹

The United States Forest Service does not have regulations specifically governing the exercise of non-federal mineral rights, but it has used other broad existing regulations to address those activities. Its record in the courts has been somewhat mixed. As discussed above, in *Duncan Energy*, the Eighth Circuit held that the Forest Service had authority to regulate surface access to mineral rights, applying reasoning that was later followed in *Burlison*. But in *Minard Run Oil Company v. United States Forest Service*, faced with a Forest Service moratorium on oil and gas permits resulting from its settlement of a prior National Environmental Policy Act (“NEPA”) lawsuit, the Third Circuit distinguished *Duncan Energy* and found that the Forest Service did not have authority to require a permit for surface access by mineral owners.⁸⁰ Several aspects of the *Minard Run* decision, however, limit its precedential weight and reach. First, as discussed further below, the decision turned on the interpretation of legal authority specific to the Forest Service. Second, the case did not squarely present the question of the Forest Service’s regulatory authority, but turned instead on the extent to which there was a federal action requiring compliance with NEPA, so most of the court’s discussion of regulatory authority is dicta. Third, it was a decision on a request for a preliminary injunction, not a decision on the merits, and the court’s analysis was clearly influenced by its view of the equities, in which it saw mineral owners harmed by a capricious shift in Forest Service policy.⁸¹

Finally, the Third Circuit’s analysis focused on the statute used to acquire the land in question, the Weeks Act, and the limits it placed on the Forest Service’s authority.⁸² As noted above, *Duncan Energy* turned on a different acquisition statute, the Bankhead-Jones Farm Tenant Act. While a statute authorizing land acquisition would not normally be the sole potential source of regulatory authority, in *Minard Run*, the Forest Service was unable to argue that it could regulate under any broader overarching authority. It had long taken a different regulatory approach under both the Weeks Act and its Organic Act, and the court held that notice-and-comment rulemaking

⁷⁴ “To administer a national network of lands and waters for the conservation, management, and where appropriate restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” 16 U.S.C. § 668dd(a)(2).

⁷⁵ 54 U.S.C. § 100101(a).

⁷⁶ 16 U.S.C. § 668dd(a)(3)(A).

⁷⁷ 54 U.S.C. §§ 100101(b); 100755.

⁷⁸ 16 U.S.C. § 668dd(b)(5).

⁷⁹ 54 U.S.C. § 100751.

⁸⁰ 670 F.3d 236 (3d Cir. 2011).

⁸¹ The opinion is rife with language critical of the way in which the Forest Service changed course. Indeed, it begins by noting that the Forest Service had “dramatically changed” its policy, and ends by saying that the Forest Service “could not credibly distinguish the present circumstances from the preceding decades” in which it had followed the old policy. *Id.* at 242, 257.

⁸² *Id.* at 251.

was needed for such a change.⁸³ In addition, the Forest Service had waived its arguments about preemption in the district court, and was therefore unable to overcome the conflict between its actions and state law.⁸⁴

Another Forest Service case, *United States v. Srnsky*⁸⁵ in the Fourth Circuit, relied on a similar reading of the Weeks Act as *Minard Run* in finding that the Forest Service lacked authority to regulate a reserved easement. *Srnsky* considered whether the Federal Land Policy and Management Act (“FLPMA”), ANILCA, or Section 551 of the National Forest Service Organic Act of 1897 preempted landowners’ common-law easements (for Forest Service land acquired under the Weeks Act). The Fourth Circuit answered this question in the negative. *Srnsky* held that the provision of the FLPMA authorizing the Secretary of Agriculture “to grant, issue, or renew rights of way” does not extend authority to regulate existing common-law easements.⁸⁶ The *Srnsky* opinion thus involved statutory interpretation alone.⁸⁷ The Fourth Circuit specifically declined to address the Constitutional question whether Congress has the power to enact a statute pursuant to the Property Clause giving federal agencies the authority to regulate common-law easements on federal land.⁸⁸

As discussed in the 1986 Opinion, the Weeks Act was the model for the MBCA provision discussed above.⁸⁹ Because *Minard Run* and *Srnsky* found that the Forest Service did not have an applicable overarching regulatory authority, as the 1986 Opinion found (albeit on dubious grounds) that FWS did not, the conclusions of those cases were similar to that of the 1986 Opinion. These Forest Service cases thus can be distinguished for the same reason that the 1986 Opinion was withdrawn: the Service has broad statutory authority to promulgate such regulations under the 1966 Administration Act and the 1997 Improvement Act. As stated in *Burlison*:

⁸³ *Id.* at 254-55.

⁸⁴ *Id.* at 253-54.

⁸⁵ 271 F.3d 595, 601-02 (4th Cir. 2001).

⁸⁶ *Id.* at 601.

⁸⁷ The Fourth Circuit held that Weeks Act does not provide rulemaking authority, while the Third Circuit does seem to suggest rulemaking under the Weeks Act is possible (*supra* n.87).

⁸⁸ The Fourth Circuit stated: “We need not decide, however, the extent of Congress’ authority to abridge common law property rights, because we find that none of the statutes relied on by the government speaks to the issue.” 271 F.3d at 601.

⁸⁹ To the extent that MBCA’s 16 U.S.C. § 715e may apply, the provision of the Weeks Act relied on by both the Third and Fourth Circuit are distinguishable from the MBCA provision (used to create refuges). The Fourth Circuit determined that section 518 of the Weeks Act required any restrictions to the mineral owners be in the deed (“But with unmistakable clarity, it [section 518] does require that any rules or regulations that the Secretary wishes to apply to easements reserved by the grantor must be “expressed in and made part of’ the instrument of conveyance.” 271 F.3d at 601). However, the MBCA provision 16 U.S.C. § 715e expressly allows for reasonable restrictions to be imposed on mineral owners after the deed is conveyed, “and it shall be expressed in the deed or lease that the use, occupation, and operation of such rights-of-way, easements, and reservations shall be subordinate to and subject to such rules and regulations as are set out in such deed or lease or, if deemed necessary by the Secretary of [Interior], to such rules and regulations as may be prescribed by him from time to time.”

The Fourth Circuit in *Srnsky* also compares the Weeks Act with the Forest Service’s Organic Act by finding that its Organic Act does not apply to the Weeks Act, “The Organic Act, we believe, simply has nothing to do with this case. *See also* 42 U.S. Op. Atty. Gen. 127, 127 n.1 (1962) (concluding that the Organic Act does not apply to land acquired under the Weeks Act).” 271 F.3d at 600. Here, the Service’s Refuge Act is complemented by the MBCA as section 715e anticipates the ability of the Secretary to require permits and reasonable restrictions for mineral activities on refuges.

“Ultimately, the *Srnsky* decision stands only for the proposition that where the [Forest Service] Organic Act, FLPMA, and ANILCA do not preempt state common-law easements, those statutes do not authorize the regulation of private easements held prior to the Government's acquisition of land. Because the instant case does not involve the same statutes, *Srnsky* cannot end our inquiry.”⁹⁰ The *Burlison* court then held that the Service does have such regulatory authority: “under the powers authorized by the Refuge Act, enacted pursuant to the Property Clause, the Secretary of the Interior via the Fish and Wildlife Service may impose reasonable regulations on the use of Plaintiffs-Appellees’ common-law easement.”⁹¹

For all of these reasons, I conclude that *Duncan Energy* is the most relevant and best reasoned of these Forest Service cases and that its analysis would most likely apply to any judicial review of the new Service regulations. In *Minard Run* and *Srnsky*, the Forest Service sought to require permits under statutes that did not confer clear regulatory authority, and it had not in fact promulgated any regulations. Notably, the *Minard Run* opinion suggests that the Forest Service actions would likely have been permissible if the Forest Service had undertaken rulemaking.⁹² In *Duncan Energy*, by contrast, the Forest Service had stronger authority and regulations.

Here the Fish and Wildlife Service, as discussed above, has even broader authority under the NWRSA, and has now promulgated regulations that provided notice and comment under that authority. This broad authority for the Service to issue permits for the use of lands by the holders of valid interests in such lands was upheld in *Burlison* and *Avoyelles Parish*.

G. Fifth Amendment Takings

The Government’s power to condition land-use approvals on private land is not without limit. If a restriction on the development of private property is unduly burdensome, it may be found to be a taking of the property under the Fifth Amendment of the Constitution, and the Government may be required to pay “just compensation” to the owner.⁹³ The Supreme Court has required an “essential nexus” and “rough proportionality” between the harm to the public interest associated with proposed development and the conditions imposed by the Government on that development.⁹⁴

While *Burlison* and other decisions confirm the Service’s general ability to impose permits requirements and other reasonable regulations on private property interests, these requirements must in fact be reasonable. Regulations that would “eviscerate” the private property right could well be found unreasonable and could be held to be a taking.⁹⁵

The Service has considered these issues in its new regulations. They expressly provide that they are not intended to result in taking of private property. To limit potential burdens on the holders

⁹⁰ 553 F.3d. at 438.

⁹¹ *Id.* at 440.

⁹² 670 F.3d at 252 n.9 (noting that a Forest Service legal interpretation was “not entitled to deference” because it was contained solely in the Office of General Counsel memorandum, and not a rulemaking, which would receive *Chevron* deference), 255 (finding Forest Service actions were “substantive rules that must be promulgated pursuant to the notice and comment procedures of the [Administrative Procedures Act] APA”).

⁹³ Amend. V (“[N]or shall private property be taken for public use without just compensation.”).

⁹⁴ See *Koontz v. St. Johns River Water Mgmt. Dist.*, 133 S. Ct. 2586 (2013); *Dolan v. City of Tigard*, 512 U.S. 374 (1994); *Nollan v. Cal. Coastal Comm’n*, 483 U.S. 825 (1987).

⁹⁵ *Burlison*, 533 F.3d at 440; *Avoyelles Parish*, 647 F.3d at 582 n.5.

of private oil and gas interests, the regulations establish performance-based standards to afford the owners flexibility, and provide for a collaborative permit process. They exclude activities undertaken on non-federal lands within refuge boundaries or from locations outside refuge boundaries, which also provides operators with an incentive to locate surface operations off of refuge lands.

While the regulations are reasonable on their face, the Service will need to ensure that their implementation remains reasonable in each particular case. The Service must avoid excessive delays in any permitting or regulatory processes, which could give rise to assertions of temporary takings. My office is available to provide assistance to refuge personnel in addressing these and related issues.

III. CONCLUSION

Based on the analysis above, I conclude that the Service possesses the requisite authority, as delegated from the Secretary, to issue regulations that reasonably regulate the exercise of non-federal oil and gas rights on areas of the Refuge System to protect and conserve the lands and the fish, animals, plants, and their habitats. Through the 1966 Administration Act, as amended by the 1997 Improvement Act, Congress has entrusted the Secretary with authority (delegated to the Service) to promulgate reasonable regulations. Although the Service has not promulgated system-wide regulations in the past, the decisions in *Burlison* and *Avoyelles Parish* have confirmed that it has the ability to regulate non-federal property rights. Further, I conclude that the Service's final rule governing the exercise of oil and gas rights of non-federal mineral owners has been drafted to avoid unnecessary, unanticipated, or unintended takings of these property rights.

This Opinion was prepared with the substantial assistance and contribution of the Division of Parks and Wildlife of the Office of the Solicitor, including Associate Solicitor Barry Roth, Lawrence Mellinger, Linus Chen, Robert Eaton, and Jason Waanders.

This Opinion supersedes all previous Solicitor's Office opinions that conflict with this Opinion.



Hilary C. Tompkins