Congressional Research Service
Informing the legislative debate since 1914

Oil and Gas Activities Within the National Wildlife Refuge System

Updated May 9, 2018

Congressional Research Service
https://crsreports.congress.gov
R45192

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

Oil- and gas-related wells are documented in 110 (approximately 18%) of the 605 units of the National Wildlife Refuge System (NWRS). The U.S. Fish and Wildlife Service (FWS), in the Department of the Interior (DOI), administers the NWRS, which includes primarily national wildlife refuges, along with wetland management districts and waterfowl production areas. The wells in the NWRS most commonly involve nonfederal oil and gas resources but sometimes encompass federal resources. Oil and gas development in the NWRS has the potential to adversely impact wildlife and/or the environment, and some see it as contrary to the mission and purposes for which the NWRS was established. Others think that some levels of oil and gas activity may take place in refuges without harming the system's central mission of wildlife conservation and that such activity could benefit the U.S. economy and provide greater energy security. FWS, which administers nonfederal mineral activities on refuge lands, and the Bureau of Land Management (BLM), which administers federal mineral activities on refuge lands, have developed regulations that seek to minimize the adverse impacts of oil and gas development in the NWRS, among other purposes.

Nonfederal oil and gas activities in refuges most often occur where FWS has acquired surface rights to refuge lands without acquiring mineral rights. In these cases, the entity (such as an individual, corporation, or tribe) that retains a valid existing right to the mineral estate has the right to develop the oil and gas resources pursuant to regulations established by FWS. According to FWS data, there are 107 NWRS units with nonfederal wells, and 45 of these units have active wells. Nonfederal oil and gas activities in the NWRS outside of Alaska are governed by a final rule promulgated by FWS on November 2016, "Management of Non-Federal Oil and Gas Rights."

In contrast to these nonfederal activities, leasing and development of federal oil and gas resources within the NWRS generally is prohibited. The primary exception is when federal oil and gas leases predate the establishment or expansion of an NWRS unit, in which case the lease can be allowed to continue. According to BLM records, outside of Alaska, there are 11 NWRS units with federal oil and gas wells, all of which have at least 1 producing well. BLM regulations require FWS concurrence as to the time, place, and nature of oil and gas activities in refuges, in order to maximize protection for wildlife populations and habitat.

For both federal and nonfederal wells in the NWRS, regulation within Alaska is different from that in the rest of the United States. In addition to general FWS and BLM regulations, these units also are subject to requirements of Alaska-specific laws, including the Alaska National Interest Lands Conservation Act (ANILCA; P.L. 96-487). Within Alaska, Kenai National Wildlife Refuge has both federal and nonfederal oil and gas wells. Three other Alaskan units have nonfederal wells.

Congress has debated both the extent of oil and gas activities in the NWRS and the compatibility of these activities with the NWRS's mission and purposes. One issue that has been debated for many years is whether to allow energy development in the Arctic National Wildlife Refuge in northeastern Alaska. P.L. 115-97, enacted in December 2017, established a federal oil and gas program for a portion of the refuge. Congress may continue to pursue oversight or legislation related to the implementation of this program, including issues related to limits on the footprint of development, compliance with the National Environmental Policy Act (42 U.S.C. §§4321-4347), or judicial review of legal challenges, among other matters. Congress also has addressed FWS's 2016 nonfederal oil and gas rule through both oversight and legislation, and it may continue to consider aspects of these regulations as well as the appropriate role for FWS in overseeing nonfederal oil and gas wells in the NWRS.

Contents

Introduction 1
Background 2
Recent Developments 3
Arctic National Wildlife Refuge 3
FWS Rule on Nonfederal Oil and Gas Management 3
Nonfederal Oil and Gas Operations in the National Wildlife Refuge System 4
Number and Location of Nonfederal Oil and Gas Operations 5
Compatibility of Nonfederal Oil and Gas Activities 9
Federal Oil and Gas Operations in the National Wildlife Refuge System 10
Number and Location of Federal Operations 10
Compatibility of Federal Oil and Gas Activities 11
Oil and Gas Activities in Alaska in the National Wildlife Refuge System 11
Number and Location of Oil and Gas Operations in Alaska Refuges 12
Compatibility of Oil and Gas Activities in Alaska 12
Potential Issues for Congress 13

Figures

Figure 1. National Wildlife Refuge System Units with Nonfederal Oil and Gas Wells 7

Tables

Table 1. Number of National Wildlife Refuge System Units with Nonfederal Wells by Region 6

Table A-1. National Wildlife Refuge System Units with Nonfederal Oil and Gas Wells 15
Table B-1. National Wildlife Refuge System Units with Federal Oil and Gas Wells 20

Appendixes

Appendix A. Nonfederal Oil and Gas Activities Within the National Wildlife Refuge System 15
Appendix B. Federal Oil and Gas Wells Within the National Wildlife Refuge System 20

Contacts

Author Information 21

Introduction

The development of oil and natural gas resources in the National Wildlife Refuge System (NWRS) has been the subject of administrative rulemaking and the focus of debate in Congress.[1] The NWRS is a network of lands and waters administered by the U.S. Fish and Wildlife Service (FWS), an agency within the Department of the Interior (DOI).[2] The NWRS contains 566 national wildlife refuges, 36 wetland management districts composed of waterfowl production areas (WPAs), and 3 WPAs that lay outside of wetland management districts.[3] Issues pertaining to oil and gas wells in the NWRS include private property rights, economic and energy security benefits of oil and gas development, and the potential for adverse effects of oil and gas development on NWRS lands and wildlife. Some see these activities as contrary to the mission of the NWRS as stated in the National Wildlife Refuge System Administration Act, as amended (NWRSAA; 16 U.S.C. §668dd), whereas others think that oil and gas activities can be managed so as to avoid undue harm to wildlife or that U.S. energy needs outweigh conservation concerns. Both the executive branch and Congress have addressed oil and gas activity in the NWRS through

- debating the compatibility of oil and gas activities with the purposes of the NWRS;
- examining the potential economic and energy security benefits of developing oil and gas resources in the NWRS, predominantly in Alaska; and
- promulgating regulations for oil and gas activities in the NWRS to ensure access to nonfederal mineral rights while attempting to minimize impacts on natural resources, including lands, waters, and wildlife.

FWS states that it aims to balance the rights of mineral resource owners and lessees in the NWRS with the system's conservation mission.[4] In 2016, FWS promulgated a final rule, titled "Management of Non-Federal Oil and Gas Rights," to update regulations for nonfederal oil and gas activities on NWRS land.[5] The 115th Congress also has considered the regulation of nonfederal oil and gas activities in the NWRS and has enacted legislation to establish a federal oil and gas program in the Arctic National Wildlife Refuge (ANWR) in Alaska.[6]

---

[1] For general information on oil and gas activities in the National Wildlife Refuge System (NWRS), see U.S. Fish and Wildlife Service (FWS), NWRS, "Oil and Gas," October 31, 2017, at https://www.fws.gov/refuges/oil-and-gas/, hereinafter cited as FWS, *NWRS Oil and Gas*.

[2] As defined in the National Wildlife Refuge System Administration Act (NWRSAA; 16 U.S.C. §668dd(a)), the mission of the NWRS is 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."

[3] The NWRS also includes national monument areas and coordination areas, which are not included in the total unit count within this report.

[4] For more information, see FWS, NWRS, "Oil and Gas."

[5] FWS, "Management of Non-Federal Oil and Gas Rights," 81 *Federal Register* 79948-79981, November 14, 2016.

[6] For more information on the Arctic National Wildlife Refuge (ANWR), see CRS In Focus IF10782, *Arctic National Wildlife Refuge (ANWR) Provisions in P.L. 115-97, Tax Cuts and Jobs Act*, by Laura B. Comay, and CRS Report RL33872, *Arctic National Wildlife Refuge (ANWR): An Overview*, by Laura B. Comay, Michael Ratner, and R. Eliot Crafton.

Background

Wells associated with oil and gas activities are present in about 18% of NWRS units. Most oil and gas operations on refuge lands involve nonfederal resources. These activities most often occur when rights to the surface and subsurface estates have been severed and FWS has acquired only the surface rights for addition to the NWRS, but valid existing rights to the mineral estate remain in nonfederal ownership.[7] FWS regulation of these nonfederal activities is based on statutory authorities reflected in a 2016 agency final rule and in sections of the FWS *Service Manual*.[8]

Leasing and development of federally owned resources within the NWRS typically is prohibited. However, in certain cases, such as where the federal leases predate the establishment or expansion of the refuge, there may be federal leases and development on refuge lands.[9] The administration of federal oil and gas resources in the NWRS is delegated to the Bureau of Land Management (BLM), in the DOI, under the Mineral Leasing Act of 1920 (30 U.S.C. §§181 et seq.). BLM administers federal oil and gas leasing under regulations at Title 43, Part 3100, of the *Code of Federal Regulations*. The regulations require BLM to obtain FWS concurrence as to the time, place, and nature of oil and gas operations, "in order to give complete protection to wildlife populations and wildlife habitat on the areas leased."[10]

Oil and gas activities in Alaskan NWRS units, like those in other states, are administered by FWS for nonfederal operations and by BLM for federal operations. However, Alaskan activities are managed pursuant to Alaska-specific law as well as the general statutory and regulatory framework described above. Relevant Alaska laws include the Alaska National Interest Lands Conservation Act (ANILCA; P.L. 96-487) and the Alaska Native Claims Settlement Act (ANCSA; 43 U.S.C. §§1601 et seq.), among others.

This report contains sections on recent developments related to oil and gas wells in the NWRS, nonfederal wells in NWRS units outside of Alaska, federal wells in NWRS units outside of Alaska, nonfederal and federal wells in Alaskan NWRS units, and issues for Congress in considering oil and gas activities in the NWRS. In the sections on federal and nonfederal wells, the report presents information on the

- number and location of oil and gas wells;
- compatibility of oil and gas activities with NWRS purposes; and
- regulatory mechanisms for the administration of oil and gas activities.

[7] Nonfederal oil and gas rights in Alaskan refuges also may have been legislatively conveyed under the Alaska Native Claims Settlement Act (ANCSA; 43 U.S.C. §§1601 et seq.). See section on Alaska refuges ("Oil and Gas Activities in Alaska in the National Wildlife Refuge System") for more information.

[8] FWS, "Management of Non-Federal Oil and Gas Rights," 81 *Federal Register* 79948-79981, November 14, 2016. FWS, *Service Manual, 612 FW 1, Series: Natural and Cultural Resources Management, Part 612: Mineral Management,* December 27, 2016, at https://www.fws.gov/policy/612fw1.pdf, outlines FWS policy for oil and gas programs and identifies the various statutory authorities. See 50 C.F.R. Part 29, Subpart D, "Management of Non-Federal Oil and Gas Rights."

[9] FWS, NWRS, "Oil and Gas."

[10] 43 C.F.R. 3101.5-1.

Recent Developments

Arctic National Wildlife Refuge

On December 22, 2017, President Trump signed into law P.L. 115-97, which provides for the creation of an oil and gas program in a portion of the Arctic National Wildlife Refuge (ANWR, or the refuge) in northeastern Alaska.[11] The law's enactment came after a decades-long debate over whether to allow oil and gas development in ANWR. P.L. 115-97 establishes an oil and gas program for the refuge's Coastal Plain,[12] with at least two oil and gas lease sales (of no fewer than 400,000 acres each) required in the next 10 years, and contains provisions for the distribution of revenues and royalties. P.L. 115-97 limits surface development to 2,000 acres for production and support facilities, which need not be concentrated in a single area.[13] Development proponents contend that the oil and gas program will generate economic activity, contribute to U.S. energy security, and result in royalty revenues for both the federal government and the state of Alaska; opponents contend that the region's reserves are not necessary for energy independence and that development will detrimentally impact the refuge's unique biological resources.

P.L. 115-97 requires the first ANWR lease sale within four years of the law's enactment—by December 2021. Activities preparatory to the lease sale include identifying lands to be leased, conducting sale-specific environmental reviews, issuing notices of sales, and other "prelease" activities. Activities also could include new geological and geophysical surveys to determine the extent and location of hydrocarbon resources.

FWS Rule on Nonfederal Oil and Gas Management

Regulations at Title 50, Part 29, Subparts C and D of the *Code of Federal Regulations* govern nonfederal oil and gas operations that occur within the NWRS outside of Alaska.[14] In November 2016, FWS promulgated a final rule, "Management of Non-Federal Oil and Gas Rights," which amended these regulations with regard to the management of nonfederal oil and gas wells in the NWRS.[15] According to FWS, the changes, which went into effect on December 14, 2016, aimed to increase the consistency of FWS regulations with state and federal law and with best management practices. The rule is discussed further below under "Nonfederal Oil and Gas Operations."

The rule has been the subject of both congressional attention and administrative action in the 115th Congress. H.J.Res. 45, introduced on January 30, 2017, would have disapproved the FWS

[11] For more information, see CRS In Focus IF10782, *Arctic National Wildlife Refuge (ANWR) Provisions in P.L. 115-97, Tax Cuts and Jobs Act*, by Laura B. Comay, and CRS Report RL33872, *Arctic National Wildlife Refuge (ANWR): An Overview*, by Laura B. Comay, Michael Ratner, and R. Eliot Crafton.

[12] The Coastal Plain (also known as the 1002 area in reference to the Alaska National Interest Lands Conservation Act; ANILCA, P.L. 96-497, 16 U.S.C. §§3161-3173) is a 1.57 million acre portion in the northeast corner of the Arctic National Wildlife Refuge (ANWR, or the refuge).

[13] P.L. 115-97, §20001(c)(3), explicitly includes "airstrips and any area covered by gravel berms or piers for support of pipelines" in its description of production and support facilities. It is unclear what other types of facilities or surface disturbances may be included or excluded. For more information, see the CRS reports cited in footnote 11.

[14] 50 C.F.R. §29. For the purpose of this report, *nonfederal oil and gas operations* refers to oil and gas wells and associated activities that occur within the boundaries of a unit of the NWRS but are operated by nonfederal (state or private) entities.

[15] FWS, "Management of Non-Federal Oil and Gas Rights," 81 *Federal Register* 79948-79981, November 14, 2016. This rule became effective on December 14, 2016, updating a previous rule.

final rule under the Congressional Review Act (CRA; 5 U.S.C. §§801-808) and prevented FWS from enacting a substantially similar rule in the future.[16] No further actions were taken on H.J.Res. 45, and the deadline to vote using fast-track procedures in the Senate pursuant to the CRA has elapsed.[17] Some proponents of the CRA action to overturn the FWS rule stated that this action was necessary because FWS had overstepped its authority in promulgating the rule.[18] They also stated that this rule would increase costs for oil and gas operators developing nonfederal resources in the NWRS. Some opponents of the CRA action contended that the final rule is a much-needed update to the previous management rule, which was more than 50 years old when the new rule was promulgated, and that the final rule establishes appropriate responsibilities for operators.[19]

The Administration also has been active on NWRS oil and gas operations. On March 28, 2017, President Trump issued Executive Order (E.O.) 13783, which required a review of several oil- and gas-related rules, including the FWS 2016 rule.[20] E.O. 13783 established that "it is in the national interest to promote clean and safe development of our Nation's vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation."[21]

E.O. 13783 instructed the Secretary of the Interior to review and "if appropriate ... suspend, revise, or rescind the guidance" of the specified rules, including the FWS nonfederal oil and gas rule, to be consistent with the statement of national interest.[22] When DOI published its final report on E.O. 13783, FWS was still in the process of reviewing the final rule.[23]

Nonfederal Oil and Gas Operations in the National Wildlife Refuge System

The FWS "Management of Non-Federal Oil and Gas Rights" rule revised requirements applicable to nonfederal oil and gas activities that occur in the NWRS outside of Alaska.[24] This rule replaced prior regulations governing these activities, which, according to FWS, had "remained unchanged for more than 50 years and provide[d] only vague guidance to staff and operators."[25] FWS said the 2016 final rule aimed to update the agency's management practices and improve the

[16] For more information on the Congressional Review Act (5 U.S.C. §§801-808), see CRS Report R43992, *The Congressional Review Act (CRA): Frequently Asked Questions*, by Maeve P. Carey and Christopher M. Davis.

[17] 5 U.S.C. §802.

[18] These proponents state that private property, including nonfederal mineral rights, within NWRS units already is regulated under state law and that the rule is unwarranted given that FWS already may require special-use permits to protect NWRS surface estates. For example, see Corbin Hiar, "Agencies to Review 2 Less-Controversial Drilling Rules," *E&E News*, April 25, 2017.

[19] For example, see NWRA, "Refuge Oil and Gas Rule and the Congressional Review Act," at https://www.refugeassociation.org/wp-content/uploads/2017/02/oil-and-gas-rule-fact-sheet-FINAL.pdf.

[20] Executive Order 13783, "Promoting Energy Independence and Economic Growth," 82 *Federal Register* 16093-16097, March 31, 2017.

[21] Ibid, p. 16903.

[22] Ibid, p. 16096.

[23] Department of the Interior, Office of the Secretary, "Final Report: Review of the Department of the Interior Actions that Potentially Burden Domestic Energy," 82 *Federal Register* 50545, November 1, 2017.

[24] FWS, "Management of Non-Federal Oil and Gas Rights," 81 *Federal Register* 79948-79981, November 14, 2016.

[25] Ibid., p. 79948.

compatibility of nonfederal oil and gas activities with the mission of the NWRS. The rule provides an explicit process for refuge staff to follow to minimize the impact of oil and gas activities on refuge resources to the extent practicable. The process includes permitting requirements, operating standards, requirements for financial bonding, and penalty provisions.[26]

The rule also requires operators to meet performance-based standards, including standards for surface use and site management, specific resource protections, spill prevention and response, waste management, and reclamation.[27] FWS claims that the performance-based standards, rather than prescriptive regulations, are intended to provide operators with flexibility in meeting the requirements of the permit while ensuring that NWRS resources are protected. These standards also address resource protection needs in different environments by allowing resource managers and operators to identify the most appropriate management practices for a given situation.

FWS also outlines its minerals management policy in the FWS *Service Manual*.[28] Specifically, Section 1.7(B) of the manual states that owners of nonfederal mineral rights within NWRS units outside of Alaska can transfer or develop these rights but must do so using the "technologically feasible, least damaging methods."[29]

Number and Location of Nonfederal Oil and Gas Operations

Prior to the issuance of the 2016 final rule, FWS published an environmental impact statement (EIS) in August 2016. As part of the EIS, FWS collected information on nonfederal oil and gas activities in the NWRS.[30] Data on nonfederal oil and gas activities presented in this report are from the EIS unless otherwise noted.

Within the NWRS, the EIS reported that 107 of the total 605 units,[31] or approximately 18%, contain nonfederally administered wells (including oil, gas, and "other" well types; see **Table 1**).[32] These units include 104 national wildlife refuges and 3 wetland management districts (**Figure 1**).[33] Forty-five NWRS units were reported to have active wells, including 44 with oil and gas wells and 11 with other well types (some units had both oil and gas wells and other well types).[34] In total, FWS recorded 5,002 nonfederal wells in the NWRS, including 2,201 gas wells,

[26] Ibid. Under the rule, new operations are by permit only. Existing permit holders must abide by terms in the permit and all state, local, and federal laws. Current operations not under a service permit are deemed "pre-existing operators and may continue to operate as they have been" and in compliance with state, local, and federal laws. (The rule states: "Making violation of applicable State laws related to oil and gas a prohibited act under the rule allows the Service to enforce these requirements as Federal requirements, and so gives us greater enforcement capabilities in ensuring that unnecessary impacts from these operations, such as leaks and spills, are avoided or minimized.") All operators must obtain a permit for any new production activities or for plugging and reclamation activities.

[27] Ibid., p. 79951.

[28] FWS, Service Manual, 612 FW 1, Series: Natural and Cultural Resources Management, Part 612: Mineral Management, December 27, 2016, at https://www.fws.gov/policy/612fw1.pdf.

[29] Ibid., Section 1.7(B), at https://www.fws.gov/policy/612fw1.pdf.

[30] FWS, "Non-Federal Oil and Gas Development Within the National Wildlife Refuge System," 79 *Federal Register* 10080-10084, February 24, 2014. FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016.

[31] FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2017)*, Tables 3 and 4. The 605 total units include 566 national wildlife refuges, 36 wetland management districts (WMDs), and 3 waterfowl protection areas not otherwise managed by a WMD.

[32] FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, p. 1-6.

[33] Ibid., Appendix D.

[34] Pedro Ramirez Jr. and Sherri Baker Mosley, *An Assessment of Oil and Gas Wells and Pipelines on National Wildlife*

971 oil wells, 59 oil and gas wells, and 1,771 other wells.[35] "Other" wells include injection wells for enhanced oil recovery, saltwater or wastewater disposal wells, coal-bed methane wells, observation wells, stratigraphic wells, dry wells, and water wells.[36] Of the 5,002 wells, 2,196 (44%) are inactive and 1,665 (33%) are active; the remaining wells have another classification.

For a complete list of NWRS units with nonfederal wells, see **Table A-1**.[37]

Table 1. Number of National Wildlife Refuge System Units with Nonfederal Wells by Region

FWS Region	Units with Oil and/or Gas Wells	Units with "Other" Wells[a]	Total Units with Wells	Total Units in Region[b]
Pacific	0	0	0	68
Southwest	20	16	23	47
Midwest	2	4	5	69
Southeast	20	31	35	130
Northeast	3	3	4	74
Mountain-Prairie	11	14	18	151
Alaska[c]	1	4	4	16
Pacific Southwest	6	18	18	50
Total	**63**	**90**	**107**	**605[d]**

Sources: Congressional Research Service (CRS), using data from U.S. Fish and Wildlife Service, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, Appendix D, and U.S. Fish and Wildlife Service, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2017)*, Tables 3 and 4.

a. "Other" wells include injection wells for enhanced oil recovery, saltwater or wastewater disposal wells, coalbed methane wells, observation wells, stratigraphic wells, dry wells, and water wells.

b. Total units include wildlife refuges, wetland management districts, and waterfowl production areas not managed as part of a wetland management district.

c. See "Oil and Gas Activities in Alaska in the National Wildlife Refuge System" for more information on activities in Alaska.

d. The 605 total units include 566 national wildlife refuge units, 36 wetland management districts (WMDs), and 3 waterfowl protection areas not otherwise managed by a WMD. Regions were determined by CRS based on the state(s) in which the unit was located. Refuges that spanned region boundaries were counted in a single region.

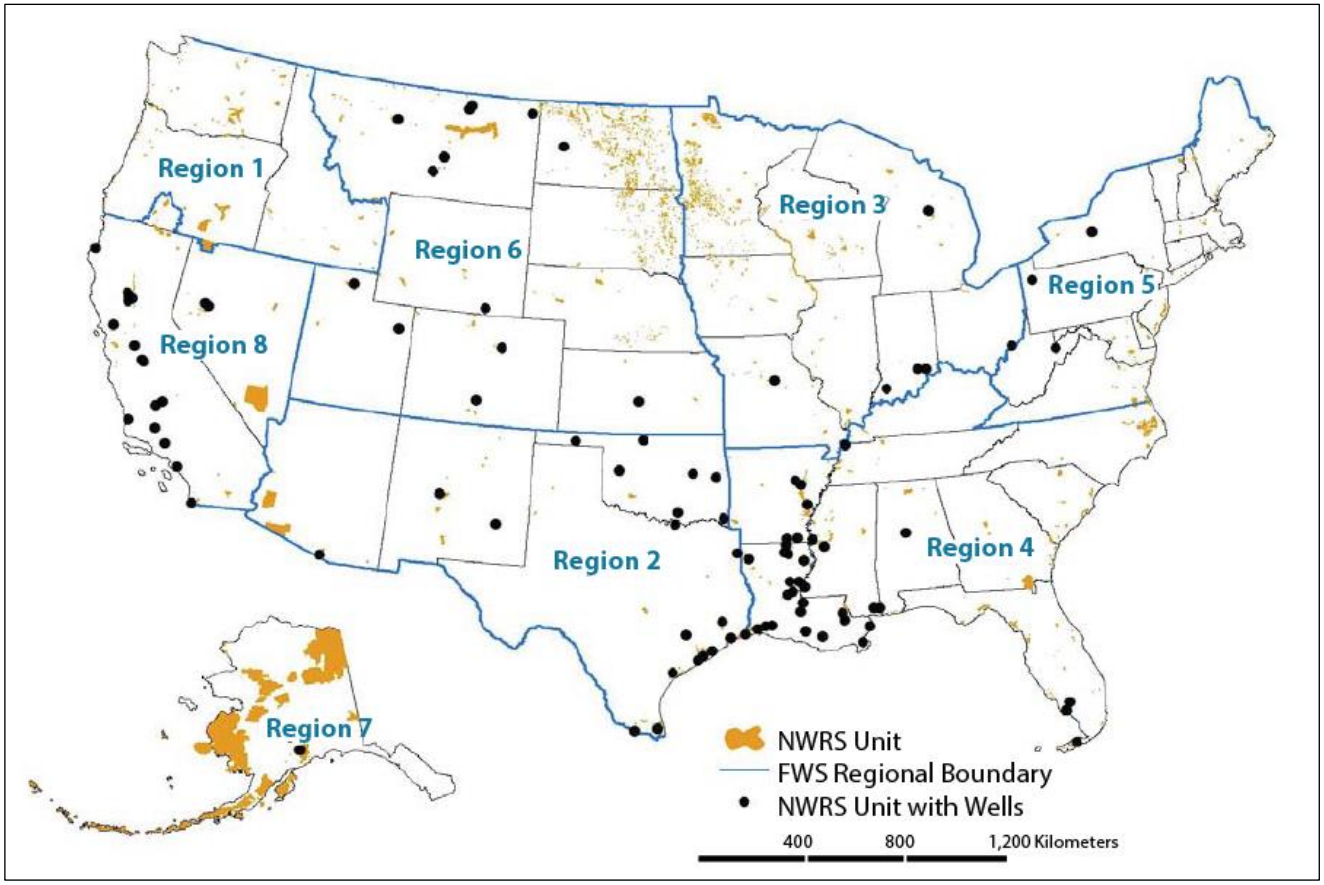
Refuge System Lands, FWS, June 2014, within FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, p. A-10, Table 3.

[35] Pedro Ramirez Jr. and Sherri Baker Mosley, *An Assessment of Oil and Gas Wells and Pipelines on National Wildlife Refuge System Lands*, FWS, June 2014, within FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, p. A-11, Table 5.

[36] FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, p. 1-6.

[37] FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, Appendix.

Figure 1. National Wildlife Refuge System Units with Nonfederal Oil and Gas Wells



Source: U.S. Fish and Wildlife Service (FWS), *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, p. 1-7, Figure 1-1.

Notes: This map includes wildlife refuges and wetland management district units within the National Wildlife Refuge System (NWRS; orange areas). Black dots represent unit locations with both active and/or inactive wells. Whereas the orange areas provide estimated size, the black dots denote location only. FWS's environmental impact statement did not report any wells in FWS units in Hawaii and the U.S. territories, which are not included on the map. Well types include oil, gas, oil and gas, injection

wells for enhanced oil recovery, saltwater disposal wells, wastewater disposal wells, coal-bed methane wells, observation wells, stratigraphic wells, dry wells, and water wells used for oil and gas operations. Certain refuges with "other" well types in **Table A-1** may not be included this map.

Compatibility of Nonfederal Oil and Gas Activities

Balancing mineral owners' right to develop their oil and gas resources with FWS's mission to conserve and protect NWRS resources can be complex and can raise questions of compatible use. The NWRS's mission is provided in the NWRSAA, as amended by the National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57).[38] The NWRSAA states that "the mission of the System is 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."[39]

Under the NWRSAA, the Secretary of the Interior is to identify and permit only activities that are deemed compatible with the NWRS's mission and to deny activities that are not compatible.[40] Specifically, the law directs the Secretary to facilitate compatible wildlife-dependent recreation opportunities, including hunting, fishing, and hiking. By providing for compatible uses only, the NWRSAA prioritizes the NWRS's primary mission—conservation; management; and restoration of fish, wildlife, and plant resources and their habitats. However, there are limited exceptions to the compatibility requirement; these exceptions provide for certain activities without requiring compatibility determinations.[41]

One such exception is for the development of nonfederal oil and gas rights. FWS's *Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997* outlines circumstances in which the compatibility determination process is not required.[42] Exemptions are provided for refuge management activities, military overflights, certain actions taken by other federal agencies with primary jurisdiction over a unit or area within a unit, emergencies, and "other" circumstances, including reserved oil and gas rights. The notice on the policy states, "B. Other exceptions. (1) There are other circumstances under which the compatibility requirements may not be applicable. The most common exceptions involve property rights that are not vested in the Federal Government, such as reserved rights to explore and develop minerals or oil and gas beneath a refuge."[43]

Although these activities are not subject to a compatibility determination, the notice goes on to state, "In the case of reserved rights, the Refuge Manager should work with the owner of the property interest to develop stipulations in a special use permit or other agreement to alleviate or minimize adverse impacts to the refuge."[44]

Questions have been raised about FWS's general authority to regulate nonfederal oil and gas resources within the NWRS.[45] In response to questions raised in public comments during

[38] 16 U.S.C. §668dd.

[39] 16 U.S.C. §668dd(a)(2).

[40] 16 U.S.C. §668dd(d).

[41] 16 U.S.C. §668dd(d)(4) exempts overflights and certain activities conducted by a non-FWS federal agency that has primary jurisdiction over a unit or section of a unit in the NWRS. §668dd(k) provides an exemption in emergency situations. Additional exemptions are provided for refuge management activities and for activities involving certain reserved nonfederal rights, such as mineral rights, and emergencies, among others. These exemptions are enumerated in Section 2.10 of FWS, "Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997," 65 *Federal Register* 62488, October 18, 2000.

[42] FWS, "Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997," 65 *Federal Register* 62457-62496, October 18, 2000. These pages contain both the final rule and the associated notice.

[43] Ibid., p. 62488.

[44] Ibid.

[45] FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Activities*,

development of the 2016 rule, FWS cited its statutory authority to regulate nonfederal oil and gas resources within the NWRS through the NWRSAA.[46] FWS relies on this same authority in requiring permits for oil and gas operations within the NWRS. The agency states that the development of oil and gas resources within the NWRS has the potential to "adversely impact [other] refuge resources."[47]

Federal Oil and Gas Operations in the National Wildlife Refuge System

Under the Mineral Leasing Act of 1920, BLM manages oil and gas leasing on federal lands, including in the NWRS. BLM regulations provide that any drilling in national wildlife refuges may take place only "with the consent and approval of the Secretary [of the Interior] with the concurrence of the Fish and Wildlife Service as to the time, place and nature of such operations in order to give complete protection to wildlife populations and wildlife habitat on the areas leased."[48]

FWS policy concerning federal oil and gas leasing within the NWRS is summarized in the agency's *Mineral Policy Service Manual*.[49] The manual states that, with limited exceptions, extracting or developing leasable federal minerals is not allowed on NWRS lands. The exception to this prohibition is for limited circumstances where oil and gas development adjacent to an NWRS unit results in the drainage of federal oil and gas resources.[50] In cases where the federal leases predate the establishment or expansion of the refuge, valid existing leases and wells may continue to operate.[51]

Number and Location of Federal Operations

BLM reports that it administers 328 federal wells in 11 NWRS units outside of Alaska and 1 unit in Alaska. (The total of 12 units includes 10 national wildlife refuges and 2 wetland management districts. See "Oil and Gas Activities in Alaska in the National Wildlife Refuge System" for more information on activities in Alaska.)[52] Of the 11 units outside of Alaska, the majority also have nonfederal oil and gas wells. However, two national wildlife refuges and one wetland management district that contain federal wells do not have nonfederal wells. The total includes 35

Advance Notice of Proposed Rulemaking—Public Comment Analysis, December 1, 2014, at https://www.fws.gov/refuges/oil-and-gas/pdfs/ANPR-Public-Comment-Report-Analysis.pdf.

[46] 16 U.S.C. §668dd(b)(5) and §668dd(d)(1)(a).

[47] FWS, "Management of Non-Federal Oil and Gas Rights," 81 *Federal Register* 79949-79950, November 14, 2016.

[48] 43 C.F.R. §3101.5.

[49] FWS, *Service Manual, 612 FW 1, Series: Natural and Cultural Resources Management, Part 612: Mineral Management*, December 27, 2016, Section 1.7(A), at https://www.fws.gov/policy/612fw1.pdf.

[50] FWS *Service Manual*, Part 612, Section 1.7(A)(2), states, "Leasing of Federal minerals is generally prohibited. Leasing of Federal oil and gas is only allowed if there is drainage of Federal oil and gas by adjacent development. The Bureau of Land Management (BLM) conducts the leasing in this situation, but it can only occur with the approval of the Secretary of the Interior, and with the Service's concurrence as to the time, place, and nature of those operations (see 43 C.F.R. 3101.5-1)."

[51] FWS, NWRS, "Oil and Gas."

[52] Personal communication between Marc Humphries, CRS Specialist in Energy Policy, and Bureau of Land Management Office of Legislative and Congressional Affairs, February 9, 2018.

producing oil wells, 65 producing gas wells, and 194 nonproducing wells of various types.[53] In addition, 34 wells are in stages of the approval process within these units.[54] The wells are located in seven states within the southeast (Louisiana), mountain (Montana, Utah, and North Dakota), southwest (New Mexico and Oklahoma), and midwest (Indiana) regions. See **Table B-1** for a complete list of federal oil and gas activity within the NWRS.

Compatibility of Federal Oil and Gas Activities

Because new development of federal oil and gas resources on refuge lands typically is prohibited, in undertaking such evaluations, it is unclear whether the FWS "concurrence" required in BLM's oil and gas leasing regulations would involve an FWS compatibility determination.[55] As discussed above, FWS's compatibility policy describes some situations in which a compatibility determination is not required.[56] Among other situations, exceptions may apply "where primary jurisdiction of refuge lands falls to an agency other than [FWS]." It is unclear whether this exception would apply in the case of federal subsurface resources, which are administered by BLM.[57]

Oil and Gas Activities in Alaska in the National Wildlife Refuge System

National wildlife refuges in Alaska are governed by the provisions of ANILCA and other Alaska-specific laws, as well as by general authorities for the NWRS.[58] ANILCA provides FWS with statutory authority to ensure that operators accessing nonfederal mineral rights within NWRS in Alaska work with FWS to help avoid operational impacts and ensure reclamation standards.[59] As noted, the regulations promulgated in the FWS nonfederal oil and gas rule of November 2016 do *not* apply to refuges in Alaska.[60] Although Alaska is exempted from regulations within the rule, the rule states

> Operations on refuges in Alaska are exempt from these regulations. However, the performance-based standards of this rule may be used, as appropriate, as guidance in

[53] Non-producing wells include abandoned, gas shut-in, oil shut-in, plugged and abandoned, gas injection, temporarily abandoned, water disposal, and water injection wells.

[54] The stages of the approval process are approved (1 well), unapproved (32 wells), and pending notice of staking (1 well).

[55] CRS communication with FWS, November 8, 2017.

[56] FWS, "Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997," 65 *Federal Register* 62457-62496, October 18, 2000. Note: citation includes page range for both the final rule and the associated notice; both contain the same title.

[57] For Alaska, state-specific statutes and regulations create a different framework. See "Compatibility of Oil and Gas Activities in Alaska."

[58] Specifically, Title XI of the Alaska National Interest Lands Conservation Act (ANILCA; P.L. 96-497, 16 U.S.C. §§3161-3173) and §22(g) of the Alaska Native Claims Settlement Act (ANCSA; 43 U.S.C. §1621(g)), as well as associated implementing regulations, govern the administration of NWRS lands in Alaska. Also see FWS, *Service Manual, 612 FW 1, Series: Natural and Cultural Resources Management, Part 612: Mineral Management*, December 27, 2016, Section 1.7(F), at https://www.fws.gov/policy/612fw1.pdf.

[59] FWS *Service Manual*, Part 612, Section 1.7(F)(2) states: "Project Leaders should use the performance-based standards in 50 CFR Part 29 Subpart D, as appropriate, to help them determine how an operator would meet the various requirements of ANILCA and ANCSA to protect NWRS resources and uses for non-Federal oil and gas."

[60] FWS, "Management of Non-Federal Oil and Gas Rights," 81 *Federal Register* 79951, November 14, 2016.

> determining how an operator would meet the various requirements of ANILCA and ANCSA [Alaska Native Claims Settlement Act, 43 U.S.C. §§1601 et seq.] to protect refuge resources and uses.[61]

Number and Location of Oil and Gas Operations in Alaska Refuges

With respect to *nonfederal* oil and gas operations in Alaska refuges, FWS identified four NWRS units in Alaska with nonfederal wells (see **Table 1** and **Table A-1**). Nonfederal subsurface ownership in Alaska may arise from situations in which FWS acquired split-estate lands without subsurface rights or from situations in which subsurface rights were legislatively conveyed under ANCSA.[62]

In total, FWS identified 199 nonfederal Alaska wells, including gas, oil, oil and gas, and other well types. Of the 199 wells, 191 are contained within a single unit, Kenai National Wildlife Refuge, and the remaining 8 (all noted as "other" for their type) are distributed across the remaining three refuges. Only Kenai National Wildlife Refuge contains both active and inactive wells; all wells in Alaska Peninsula, Becharof, and Yukon Delta National Wildlife Refuges are inactive.[63]

With respect to *federal* oil and gas operations in Alaska refuges, BLM identified 92 wells, all within the Kenai National Wildlife Refuge.[64] Of this total, 30 wells are producing oil, 12 wells are producing gas, and 49 are nonproducing wells of various types. One additional well is in the drilling stage. As discussed above (see "Arctic National Wildlife Refuge"), P.L. 115-97 requires the development of a federal oil and gas program within the ANWR.

See **Table B-1** for a complete list of federal wells in Alaska.

Compatibility of Oil and Gas Activities in Alaska

Section 304 of ANILCA states: "Each refuge shall be administered by the Secretary [of the Interior], subject to valid existing rights, in accordance with the laws governing the administration of units of the National Wildlife Refuge System, and this Act."[65] The section additionally states that the Secretary must determine whether proposed refuge uses (including certain oil and gas activities discussed in ANILCA) are compatible with refuge purposes before permitting those uses.[66] FWS states in its *Service Manual* that the agency "may alter the compatibility process, in some cases, for Alaska refuges," including for reviewing oil and gas leasing on non-North Slope refuges.[67] Also, BLM regulations at 43 C.F.R. 3101.5-3 state with regard to Alaska wildlife areas that "no lands within a refuge in Alaska open to leasing shall be

---

[61] Ibid.

[62] FWS, *Non-Federal Oil & Gas Activities on National Wildlife Refuge System Lands*, November 2016, at https://www.fws.gov/refuges/oil-and-gas/pdfs/Oil-Gas-Fact-sheet.pdf.

[63] FWS, *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, p. A-10, Table 3.

[64] Personal communication between Marc Humphries, CRS Specialist in Energy Policy, and Bureau of Land Management Office of Legislative and Congressional Affairs, February 9, 2018.

[65] ANILCA §304.

[66] ANILCA §304(b).

[67] FWS, *Service Manual, 603 FW 2, Series: Refuge Management, Part 603: National Wildlife Refuge System Uses*, November 17, 2000, Section 2.6(A), at https://www.fws.gov/policy/603fw2.pdf. The North Slope consists of land in Alaska that lies north of the crest of the Brooks Mountain Range.

available until the Fish and Wildlife Service has first completed compatability [*sic*] determinations."[68]

Section 1008 of ANILCA outlines a requirement for the Secretary of the Interior to establish an oil and gas leasing program for certain non-North Slope federal lands in Alaska.[69] The section provides that the Secretary shall not identify lands for oil and gas development where this activity would be in violation of applicable law or, in the case of NWRS lands, would be incompatible with the purpose for which the units were established. Section 1009 requires that, upon receipt of an application for an oil and gas lease, the Secretary must render a decision, accompanied by a statement explaining the decision and whether oil and gas activities would be compatible with the purpose of the NWRS unit, within six months or within three months after publication of a final environmental impact statement if the Secretary determines one is required under the National Environmental Policy Act (NEPA; 42 U.S.C. §§4321-4347).[70]

In debating oil and gas development in the ANWR, Congress has considered the compatibility of oil and gas activities with refuge purposes. P.L. 115-97, which established an oil and gas program for ANWR's Coastal Plain, amended ANILCA to include a new refuge purpose: "to provide for an oil and gas program on the Coastal Plain." Including oil and gas as a refuge purpose appears likely to facilitate a compatibility decision for an oil and gas program. FWS would prepare a compatibility determination as part of BLM's development of the oil and gas program, which has not yet occurred.

Potential Issues for Congress

The 115th Congress has considered several issues relating to oil and gas activities in the NWRS. Issues of interest have included the general compatibility of oil and gas activity with NWRS purposes and oil and gas development in ANWR specifically. (See "Recent Developments" section for more information.)

H.J.Res. 45 was introduced, under the authorities provided by the Congressional Review Act (CRA), to disapprove the 2016 final rule pertaining to nonfederal oil and gas activities within the NWRS outside of Alaska.[71] Although the window for considering H.J.Res. 45 under the expedited procedures associated with the CRA has elapsed, Congress may consider the issues raised in this legislation. For example, Congress may be interested in issues pertaining to permitting fees, the role of state regulators, and how to balance or prioritize facilitation of activities with concerns about wildlife and resource protection.

Separately in the 115th Congress, P.L. 115-97 addressed the long-standing issue of energy development in ANWR by establishing an oil and gas program for the Coastal Plain within the refuge.[72] H.R. 49 and S. 49, introduced prior to the passage of P.L. 115-97, proposed oil and gas leasing programs for the Coastal Plain that contained similar but not identical provisions to the enacted law. Also introduced in the 115th Congress, H.R. 1889 and S. 820 would designate the

[68] 43 C.F.R. §3101.5-3.

[69] ANILCA §1008. Also at 16 U.S.C. §3148.

[70] ANILCA §1009. Also at 16 U.S.C. §3149.

[71] FWS, "Management of Non-Federal Oil and Gas Rights," 81 *Federal Register* 79948-79981, November 14, 2016. This rule became effective on December 14, 2016, updating a previous rule.

[72] For more information on the Arctic National Wildlife Refuge, see CRS Report RL33872, *Arctic National Wildlife Refuge (ANWR): An Overview*, by Laura B. Comay, Michael Ratner, and R. Eliot Crafton.

Coastal Plain as wilderness under the Wilderness Act, which generally would prohibit commercial activities, including energy development.[73]

Congress may remain interested in key aspects of the ANWR debate that have been raised in P.L. 115-97 and previously. These could include issues related to limits on the footprint of development, other environmental protections, compliance with NEPA, FWS and BLM management roles, judicial review of legal challenges, and treatment of special areas within the Coastal Plain, among other matters. For more information on these issues, see CRS Report RL33872, *Arctic National Wildlife Refuge (ANWR): An Overview*. P.L. 115-97 addressed some of these issues and not others, possibly owing in part to limitations imposed by the budget reconciliation process on the matters that can be considered germane.[74] Congress could choose to address these issues through future oversight or legislation.

[73] 16 U.S.C. §§1131 et seq., Wilderness Act. For more information, see CRS Report RL31447, *Wilderness: Overview, Management, and Statistics*, by Katie Hoover.

[74] In particular, the Senate's "Byrd rule" limits the inclusion of provisions extraneous to achieving the goals of the reconciliation instructions, including provisions that are outside the jurisdiction of the committee submitting the reconciliation measure. For more information, see CRS Report RL30862, *The Budget Reconciliation Process: The Senate's "Byrd Rule,"* by Bill Heniff Jr.

Appendix A. Nonfederal Oil and Gas Activities Within the National Wildlife Refuge System

Table A-1. National Wildlife Refuge System Units with Nonfederal Oil and Gas Wells

(number of wells)

Region / State / NWRS Unit	Gas	Oil	Oil and Gas	Other[a]	Total
Region 1 – Pacific	**0**	**0**	**0**	**0**	**0**
Region 2 – Southwest	**358**	**282**	**26**	**308**	**974**
Arizona	**—**	**—**	**—**	**1**	**1**
Buenos Aires National Wildlife Refuge	—	—	—	1	1
New Mexico	**5**	**10**	**—**	**2**	**17**
Bitter Lake National Wildlife Refuge	5	10	—	—	15
Sevilleta National Wildlife Refuge	—	—	—	2	2
Oklahoma	**62**	**149**	**—**	**255**	**466**
Deep Fork National Wildlife Refuge	26	147	—	227	400
Little River National Wildlife Refuge	—	1	—	7	8
Optima National Wildlife Refuge	13	—	—	2	15
Salt Plains National Wildlife Refuge	11	1	—	1	13
Sequoyah National Wildlife Refuge	—	—	—	4	4
Tishomingo National Wildlife Refuge	2	—	—	12	14
Washita National Wildlife Refuge	10	—	—	2	12
Texas	**291**	**123**	**26**	**50**	**490**
Anahuac National Wildlife Refuge	5	7	—	3	15
Aransas National Wildlife Refuge	58	8	4	2	72
Attwater Prairie Chicken National Wildlife Refuge	19	1	—	—	20
Big Boggy National Wildlife Refuge	1	—	—	—	1
Brazoria National Wildlife Refuge	12	4	3	—	19
Caddo Lake National Wildlife Refuge	2	2	—	1	5
Hagerman National Wildlife Refuge	3	71	4	38	116
Laguna Atascosa National Wildlife Refuge	11	—	—	—	11
Lower Rio Grande Valley National Wildlife Refuge	139	23	10	3	175
McFaddin National Wildlife Refuge	14	4	—	2	20
San Bernard National Wildlife Refuge	24	3	2	1	30
Texas Point National Wildlife Refuge	—	—	2	—	2
Trinity River National Wildlife Refuge	3	—	1	—	4
Region 3 – Midwest	**2**	**7**	**—**	**93**	**102**
Indiana	**—**	**7**	**—**	**89**	**96**

(number of wells)

Region / State / NWRS Unit	Gas	Oil	Oil and Gas	Other[a]	Total
Big Oaks National Wildlife Refuge	—	—	—	5	5
Muscatatuck National Wildlife Refuge	—	—	—	1	1
Patoka River National Wildlife Refuge	—	7	—	83	90
Michigan	**2**	**—**	**—**	**—**	**2**
Kirtlands Warbler Wildlife Management Area	2	—	—	—	2
Missouri	**—**	**—**	**—**	**4**	**4**
Big Muddy National Fish And Wildlife Refuge	—	—	—	4	4
Region 4 – Southeast	**1,709**	**530**	**16**	**1,172**	**3,427**
Alabama	**—**	**—**	**—**	**14**	**14**
Cahaba River National Wildlife Refuge	—	—	—	14	14
Arkansas	**8**	**51**	**—**	**6**	**65**
Bald Knob National Wildlife Refuge	3	—	—	—	3
Cache River National Wildlife Refuge	2	—	—	—	2
Felsenthal National Wildlife Refuge	3	48	—	6	57
Overflow National Wildlife Refuge	—	1	—	—	1
White River National Wildlife Refuge	—	2	—	—	2
Florida	**—**	**—**	**—**	**4**	**4**
Florida Panther National Wildlife Refuge	—	—	—	2	2
National Key Deer Refuge	—	—	—	1	1
Ten Thousand Islands National Wildlife Refuge	—	—	—	1	1
Kentucky	—	—	—	1	1
Reelfoot National Wildlife Refuge	—	—	—	1	1
Louisiana	**1,693**	**349**	**16**	**772**	**2,830**
Atchafalaya National Wildlife Refuge	9	12	2	23	46
Bayou Cocodrie National Wildlife Refuge	—	—	—	49	49
Bayou Sauvage National Wildlife Refuge	—	—	—	4	4
Bayou Teche National Wildlife Refuge	14	3	—	18	35
Big Branch Marsh National Wildlife Refuge	—	—	—	4	4
Black Bayou Lake National Wildlife Refuge	78	—	—	7	85
Breton National Wildlife Refuge	—	—	—	3	3
Cameron Prairie National Wildlife Refuge	—	—	—	14	14
Cat Island National Wildlife Refuge	2	—	—	3	5
Catahoula National Wildlife Refuge	1	20	—	54	75
D'Arbonne National Wildlife Refuge	183	—	—	100	283
Delta National Wildlife Refuge	52	214	11	86	363
Grand Cote National Wildlife Refuge	—	—	—	2	2

(number of wells)

Region / State / NWRS Unit	Gas	Oil	Oil and Gas	Other[a]	Total
Lacassine National Wildlife Refuge	32	5	1	42	80
Lake Ophelia National Wildlife Refuge	—	5	—	51	56
Mandalay National Wildlife Refuge	13	5	—	25	43
Red River National Wildlife Refuge	6	24	—	27	57
Sabine National Wildlife Refuge	22	23	2	51	98
St. Catherine Creek National Wildlife Refuge	—	—	—	6	6
Tensas River National Wildlife Refuge	1	36	—	75	112
Upper Ouachita National Wildlife Refuge	1,280	2	—	128	1,410
Mississippi	**8**	**130**	**—**	**375**	**513**
Grand Bay National Wildlife Refuge	—	—	—	1	1
Mississippi Sandhill Crane National Wildlife Refuge	—	—	—	1	1
Panther Swamp National Wildlife Refuge	—	—	—	2	2
St. Catherine Creek National Wildlife Refuge	8	130	—	370	508
Yazoo National Wildlife Refuge	—	—	—	1	1
Region 5 – Northeast	**7**	**4**	**11**	**28**	**50**
New York	**—**	**—**	**—**	**1**	**1**
Montezuma National Wildlife Refuge	—	—	—	1	1
Pennsylvania	**2**	**—**	**—**	**—**	**2**
Erie National Wildlife Refuge	2	—	—	—	2
West Virginia	**5**	**4**	**11**	**27**	**47**
Canaan Valley National Wildlife Refuge	4	—	—	3	7
Ohio River Islands National Wildlife Refuge	1	4	11	24	40
Region 6 – Mountain-Prairie	**42**	**37**	**2**	**41**	**122**
Colorado	**—**	**—**	**—**	**3**	**3**
Baca National Wildlife Refuge	—	—	—	2	2
Rocky Mountain Arsenal National Wildlife Refuge	—	—	—	1	1
Kansas	**1**	**25**	**1**	**—**	**27**
Quivira National Wildlife Refuge	1	25	1	—	27
Montana	**40**	**9**	**—**	**34**	**83**
Benton Lake National Wildlife Refuge	—	—	—	2	2
Benton Lake Wetland Management District	4	—	—	7	11
Bowdoin National Wildlife Refuge	1	—	—	1	2
Bowdoin Wetland Management District	21	—	—	2	23
Hailstone National Wildlife Refuge	—	—	—	1	1
Halfbreed Lake National Wildlife Refuge	1	—	—	4	5
Hewitt Lake National Wildlife Refuge	13	—	—	1	14

(number of wells)

Region / State / NWRS Unit	Gas	Oil	Oil and Gas	Other[a]	Total
Lake Mason National Wildlife Refuge	—	—	—	2	2
Medicine Lake National Wildlife Refuge	—	2	—	3	5
Northeast Montana Wetland Management District	—	7	—	11	18
North Dakota	**—**	**—**	**1**	**—**	**1**
Lake Ilo National Wildlife Refuge	—	—	1	—	1
Utah	**1**	**3**	**—**	**3**	**7**
Bear River Migratory Bird Refuge	—	—	—	3	3
Colorado River Wildlife Management Area	1	2	—	—	3
Ouray National Wildlife Refuge	—	1	—	—	1
Wyoming	—	—	—	1	1
Mortenson Lake National Wildlife Refuge	—	—	—	1	1
Region 7 – Alaska	**75**	**66**	**4**	**54**	**199**
Alaska	**75**	**66**	**4**	**54**	**199**
Alaska Peninsula National Wildlife Refuge	—	—	—	5	5
Becharof National Wildlife Refuge	—	—	—	2	2
Kenai National Wildlife Refuge	75	66	4	46	191
Yukon Delta National Wildlife Refuge	—	—	—	1	1
Region 8 – Pacific Southwest	**8**	**45**	**—**	**75**	**128**
California	**8**	**45**	**—**	**70**	**123**
Bitter Creek National Wildlife Refuge	—	—	—	12	12
Butte Sink Wildlife Management Area	—	—	—	1	1
Colusa National Wildlife Refuge	1	—	—	3	4
Delevan National Wildlife Refuge	1	—	—	7	8
Grasslands Wildlife Management Area	—	—	—	6	6
Guadalupe-Nipomo Dunes National Wildlife Refuge	—	2	—	1	3
Hopper Mountain National Wildlife Refuge	—	17	—	2	19
Humboldt Bay National Wildlife Refuge	—	—	—	1	1
Kern National Wildlife Refuge	—	—	—	2	2
Merced National Wildlife Refuge	—	—	—	1	1
North Central Valley Wildlife Management Area	6	—	—	22	28
Pixley National Wildlife Refuge	—	—	—	1	1
San Joaquin River National Wildlife Refuge	—	—	—	5	5
San Pablo Bay National Wildlife Refuge	—	—	—	1	1
Seal Beach National Wildlife Refuge	—	26	—	4	30
Tijuana Slough National Wildlife Refuge	—	—	—	1	1
Nevada	**—**	**—**	**—**	**5**	**5**

(number of wells)

Region / State / NWRS Unit	Gas	Oil	Oil and Gas	Other[a]	Total
Fallon National Wildlife Refuge	—	—	—	1	1
Stillwater National Wildlife Refuge	—	—	—	4	4
Grand Total	**2,201**	**971**	**59**	**1,771**	**5,002**

Source: CRS, with data from U.S. Fish and Wildlife Service (FWS), *National Wildlife Refuge System Revision of Regulations Governing Non-Federal Oil and Gas Rights: Environmental Impact Analysis*, June 2016, Appendix D.

Notes: The table represents the best available data as analyzed for FWS's environmental impact statement.

a. The "Other" category includes wells other than oil and gas: injection, water disposal, enhanced oil recovery, dry, observation, stratigraphic, other, and production type data not available.

Appendix B. Federal Oil and Gas Wells Within the National Wildlife Refuge System

Table B-1. National Wildlife Refuge System Units with Federal Oil and Gas Wells

(number of wells)

Region / State / NWRS Unit	Not Producing[a]			Producing			Not Drilled[b]	Total
	Gas	Oil	Other	Gas	Oil	Drilling		
Region 1 – Pacific	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Region 2 – Southwest	**0**	**0**	**7**	**29**	**6**	**0**	**14**	**56**
New Mexico	**—**	**—**	**7**	**27**	**1**	**—**	**13**	**48**
Bitter Lake National Wildlife Refuge	—	—	7	27	1	—	13	48
Oklahoma	**—**	**—**	**—**	**2**	**5**	**—**	**1**	**8**
Salt Plains National Wildlife Refuge	—	—	—	2	5	—	1	8
Region 3 – Midwest	**0**	**0**	**5**	**0**	**2**	**0**	**0**	**7**
Indiana	**—**	**—**	**5**	**—**	**2**	**—**	**—**	**7**
Patoka River National Wildlife Refuge	—	—	5	—	2	—	—	7
Region 4 – Southeast	**1**	**2**	**154**	**7**	**16**	**0**	**6**	**186**
Louisiana	**1**	**2**	**154**	**7**	**16**	**—**	**6**	**186**
Delta-Breton National Wildlife Refuge	1	2	154	7	15	—	6	185
Tern Island National Wildlife Refuge	—	—	0	—	1	—	0	1
Region 5 – Northeast	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Region 6 – Mountain-Prairie	**1**	**0**	**24**	**29**	**11**	**0**	**14**	**79**
Montana	**1**	**—**	**10**	**27**	**1**	**—**	**1**	**40**
Bowdoin National Wildlife Refuge	1	—	8	23	—	—	1	33
Hewitt Lake National Wildlife Refuge	—	—	2	4	—	—	—	6
Northeast Montana Wetland Management District (Sheridan County Waterfowl Production Area)	—	—	—	—	1	—	—	1
North Dakota	**—**	**—**	**—**	**—**	**7**	**—**	**—**	**7**
Upper Souris National Wildlife Refuge	—	—	—	—	6	—	—	6
Crosby Wetland Management District (Williams County Waterfowl Production Area)	—	—	—	—	1	—	—	1

(number of wells)

Region / State / NWRS Unit	Not Producing[a]			Producing			Not Drilled[b]	Total
	Gas	Oil	Other	Gas	Oil	Drilling		
Utah	**—**	**—**	**14**	**2**	**3**	**—**	**13**	**32**
Ouray National Wildlife Refuge	—	—	14	2	3	—	13	32
Region 7 – Alaska	**7**	**4**	**38**	**12**	**30**	**1**	**0**	**92**
Alaska	**7**	**4**	**38**	**12**	**30**	**1**	**—**	**92**
Kenai National Wildlife Refuge	7	4	38	12	30	1	—	92
Region 8 – Pacific Southwest	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total	**9**	**6**	**228**	**77**	**65**	**1**	**34**	**420**

Source: CRS, with data from personal communication between Marc Humphries, Specialist in Energy Policy, and Bureau of Land Management Office of Legislative and Congressional Affairs, February 9, 2018.

a. *Not-producing* well types: gas (gas shut-in); oil (oil shut-in); other: abandoned, plugged and abandoned, gas injection, temporarily abandoned, water disposal, and water injection. A shut-in well is one that has produced oil or gas and is capable of producing but is not currently doing so.

b. *Not drilled* includes proposed wells with statuses of approved, unapproved, and pending notice of staking.

Author Information

R. Eliot Crafton
Analyst in Natural Resources Policy

Marc Humphries
Specialist in Energy Policy

Laura B. Comay
Specialist in Natural Resources Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.