



6 Dec 2021

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Re: Comments on Pending Applications for Permits to Drill

Responsible Officials:

This letter provides comments on the following 232 applications for permits to drill listed on 6 December 2021 in the 30-day Federal Public Posting on the Bureau of Land Management’s Automated Fluid Minerals Support System. The Center for Biological Diversity hereby requests notification of and participation in all stages of National Environmental Policy Act review pertaining to those permits to drill. Please use APD@biologicaldiversity.org to contact the Center in all future correspondence relating to these permits to drill and their respective NEPA processes.

The subject wells and applications for permits to drill are:

BLM Admin State	Field Office	Federal Lease Number	Operator	Well Name	Well Number
Alaska	Alaska State Office	AKAA093748	EMERALD HOUSE LLC	MERLIN	2
Colorado	Colorado River Valley Field Office	COC056300	LARAMIE ENERGY LLC	CC FEDERAL	0697-15-18W
Colorado	Colorado River Valley Field Office	COC056300	LARAMIE ENERGY LLC	CC FEDERAL	0697-15-19W
Colorado	Royal Gorge Field Office	COC76179	CRESTONE PEAK RESOURCES	FRASER	3-64 33-32 1AH
Colorado	Royal Gorge Field Office	COC77600	CRESTONE PEAK RESOURCES	FRASER	3-64 33-32 2AH
Montana/Dakotas	North Dakota Field Office	NDM095183	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-10HLW
Montana/Dakotas	North Dakota Field Office	NDM095183	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-11H
Montana/Dakotas	North Dakota Field Office	NDM095182	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-12H
Montana/Dakotas	North Dakota Field Office	NDNDM095182	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-13H
Montana/Dakotas	North Dakota Field Office	NDM095183	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-4H
Montana/Dakotas	North Dakota Field Office	NDM095182	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-6H
Montana/Dakotas	North Dakota Field Office	NDNDM095182	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-7H
Montana/Dakotas	North Dakota Field Office	NDNDM095182	OVINTIV PRODUCTION INCORPORATED	CLEAR CREEK FEDERAL	152-97-36-25-8H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-10H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-11H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-12H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-13H

Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-14H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-3H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-4H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-5H
Montana/Dakotas	North Dakota Field Office	NDM11920	OVINTIV PRODUCTION INCORPORATED	SORENSEN FEDERAL	153-96-9-4-6HLW
New Mexico	Carlsbad Field Office	NMNM119271	BTA OIL PRODUCERS LLC	HARROUN RANCH 20702 20-17 FEDERAL COM	10H
New Mexico	Carlsbad Field Office	NMNM119271	BTA OIL PRODUCERS LLC	HARROUN RANCH 20702 20-17 FEDERAL COM	11H
New Mexico	Carlsbad Field Office	NMNM116028	CHEVRON USA INCORPORATED	CICADA UNIT	59H
New Mexico	Carlsbad Field Office	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	BIG SINKS DRAW 25-13 FED COM	372H
New Mexico	Carlsbad Field Office	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	BIG SINKS DRAW 25-13 FED COM	770H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	331H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	332H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	333H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	334H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	335H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	336H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	621H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	622H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	623H
New Mexico	Carlsbad Field Office	NMNM82992	DEVON ENERGY PRODUCTION COMPANY LP	BURTON FLAT 35-33 FED COM	624H
New Mexico	Carlsbad Field Office	NMNM63994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	331H
New Mexico	Carlsbad Field Office	NMNM63994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	332H
New Mexico	Carlsbad Field Office	NMNM63994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	611H
New Mexico	Carlsbad Field Office	NMNM63994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	612H
New Mexico	Carlsbad Field Office	NMNM63994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	711H
New Mexico	Carlsbad Field Office	NMNM63994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	712H
New Mexico	Carlsbad Field Office	NMNM98192	DEVON ENERGY PRODUCTION COMPANY LP	GATO GRANDE 9-4 FED COM	524H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	102H

New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	103H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	104H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	301H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	303H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	304H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	802H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	803H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	804H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	805H
New Mexico	Carlsbad Field Office	NMNM132081	FRANKLIN MOUNTAIN ENERGY LLC	FMM FED COM	806H
New Mexico	Carlsbad Field Office	NMNM120353	MEWBOURNE OIL COMPANY	PRINCE 31 B1DA FED COM	1H
New Mexico	Carlsbad Field Office	NMNM111533	MEWBOURNE OIL COMPANY	PRINCE 31 B1EH FED COM	1H
New Mexico	Carlsbad Field Office	NMNM120353	MEWBOURNE OIL COMPANY	PRINCE 31 W2DA FED COM	1H
New Mexico	Carlsbad Field Office	NMNM120353	MEWBOURNE OIL COMPANY	PRINCE 31 W2DA FED COM	2H
New Mexico	Carlsbad Field Office	NMNM111533	MEWBOURNE OIL COMPANY	PRINCE 31 W2EH FED COM	1H
New Mexico	Carlsbad Field Office	NMNM0113967	MEWBOURNE OIL COMPANY	RED HILLS WEST UNIT	025H
New Mexico	Carlsbad Field Office	NMNM019593	MURCHISON OIL & GAS LLC	BOMB SITE FED COM LW	10H
New Mexico	Carlsbad Field Office	NMNM015296	MURCHISON OIL & GAS LLC	BOMB SITE FED COM LW	11H
New Mexico	Carlsbad Field Office	NMNM015296	MURCHISON OIL & GAS LLC	BOMB SITE FED COM LW	12H
New Mexico	Carlsbad Field Office	NMNM019593	MURCHISON OIL & GAS LLC	BOMB SITE FED COM LW	7H
New Mexico	Carlsbad Field Office	NMNM019593	MURCHISON OIL & GAS LLC	BOMB SITE FED COM LW	8H
New Mexico	Carlsbad Field Office	NMNM019593	MURCHISON OIL & GAS LLC	BOMB SITE FED COM LW	9H
New Mexico	Carlsbad Field Office	NMNM104965	STRATA PRODUCTION COMPANY	FNRU FEDERAL COM 22 23 III	15H
New Mexico	Carlsbad Field Office	NMNM114978	STRATA PRODUCTION COMPANY	ROADRUNNER FEDERAL 25 OBL	8H
New Mexico	Carlsbad Field Office	NMNM114978	STRATA PRODUCTION COMPANY	ROADRUNNER FEDERAL COM 23 ILL	5H
New Mexico	Carlsbad Field Office	NMNM114978	STRATA PRODUCTION COMPANY	ROADRUNNER FEDERAL COM 23 PML	6H
New Mexico	Carlsbad Field Office	NMNM016353	XTO ENERGY INCORPORATED	OUTRIDER 28 FED	704H
New Mexico	Carlsbad Field Office	NMNM016353	XTO ENERGY INCORPORATED	OUTRIDER 28 FED	705H

New Mexico	Carlsbad Field Office	NMNM016353	XTO ENERGY INCORPORATED	OUTRIDER 28 FED	706H
New Mexico	Carlsbad Field Office	NMNM016353	XTO ENERGY INCORPORATED	OUTRIDER 28 FED	707H
New Mexico	Farmington Field Office	NMNM76842	DJR OPERATING LLC	BETONNIE TSOSIE WASH UNIT	305H
New Mexico	Farmington Field Office	NMNM136161	DJR OPERATING LLC	BETONNIE TSOSIE WASH UNIT	306H
New Mexico	Farmington Field Office	NMNM50999	DJR OPERATING LLC	BETONNIE TSOSIE WASH UNIT	401H
New Mexico	Farmington Field Office	NMNM50999	DJR OPERATING LLC	BETONNIE TSOSIE WASH UNIT	402H
New Mexico	Farmington Field Office	NMNM76842	DJR OPERATING LLC	BETONNIE TSOSIE WASH UNIT	721H
New Mexico	Farmington Field Office	NMNM50999	DJR OPERATING LLC	BETONNIE TSOSIE WASH UNIT	732H
New Mexico	Hobbs Field Station	NMNM137809	AMEREDEV OPERATING LLC	GREEN JACKET 26 36 20 FED COM	107H
New Mexico	Hobbs Field Station	NMNM140366	AMEREDEV OPERATING LLC	PRIZEHOG 26 36 19 FED COM	103H
New Mexico	Hobbs Field Station	NMNM140366	AMEREDEV OPERATING LLC	PRIZEHOG 26 36 19 FED COM	123H
New Mexico	Hobbs Field Station	NMNM97897	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 1BS COM	10H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 1BS COM	11H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 1BS COM	12H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 2BS COM	9H
New Mexico	Hobbs Field Station	NMNM97897	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 2BSC COM	13H
New Mexico	Hobbs Field Station	NMNM97897	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 2BSC COM	14H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 2BSC COM	15H
New Mexico	Hobbs Field Station	NMNM97897	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 3BS COM	20H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 3BS COM	21H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED 3BS COM	22H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED HKY COM	18H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED HKY COM	19H
New Mexico	Hobbs Field Station	NMNM97897	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED WCA COM	23H
New Mexico	Hobbs Field Station	NMNM97897	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED WCA COM	24H
New Mexico	Hobbs Field Station	NMNM97896	CHISHOLM ENERGY OPERATING LLC	JADE 34-3 FED WCA COM	25H
New Mexico	Hobbs Field Station	NMNM57285	CHISHOLM ENERGY OPERATING LLC	THUNDERBALL 23 FED 1BS COM	2H
New Mexico	Hobbs Field Station	NMNM57285	CHISHOLM ENERGY OPERATING LLC	THUNDERBALL 23 FED 3BS COM	4H

New Mexico	Hobbs Field Station	NMNM57285	CHISHOLM ENERGY OPERATING LLC	THUNDERBALL 23 FED WCA COM	7H
New Mexico	Hobbs Field Station	NMNM063994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	521H
New Mexico	Hobbs Field Station	NMNM063994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	522H
New Mexico	Hobbs Field Station	NMNM063994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	523H
New Mexico	Hobbs Field Station	NMNM063994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	532H
New Mexico	Hobbs Field Station	NMNM063994	DEVON ENERGY PRODUCTION COMPANY LP	EXOTIC CAT 5-17 FED COM	533H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	121H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	122H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	123H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	124H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	521H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	522H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	523H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	524H
New Mexico	Hobbs Field Station	NMNM86153	DEVON ENERGY PRODUCTION COMPANY LP	FLOOFY CAT 21-16 FED STATE COM	525H
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New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	521H
New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	522H
New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	523H
New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	524H
New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	525H
New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	526H
New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	527H
New Mexico	Hobbs Field Station	NMLC062300	DEVON ENERGY PRODUCTION COMPANY LP	MORAB 29-8 FED COM	528H
New Mexico	Hobbs Field Station	NMNM018848	DEVON ENERGY PRODUCTION COMPANY LP	PURRITO 18-19 FED COM	121H
New Mexico	Hobbs Field Station	NMNM0139370	DEVON ENERGY PRODUCTION COMPANY LP	PURRITO 18-19 FED COM	122H

New Mexico	Hobbs Field Station	NMNM0139370	DEVON ENERGY PRODUCTION COMPANY LP	PURRITO 18-19 FED COM	123H
New Mexico	Hobbs Field Station	NMNM018848	DEVON ENERGY PRODUCTION COMPANY LP	PURRITO 18-19 FED COM	521H
New Mexico	Hobbs Field Station	NMNM018848	DEVON ENERGY PRODUCTION COMPANY LP	PURRITO 18-19 FED COM	522H
New Mexico	Hobbs Field Station	NMNM0139370	DEVON ENERGY PRODUCTION COMPANY LP	PURRITO 18-19 FED COM	523
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	301H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	302H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	304H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	305H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	306H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	307H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	308H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	309H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	310H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	311H
New Mexico	Hobbs Field Station	NMNM14497	EOG RESOURCES INCORPORATED	SHIPROCK 5 FED COM	312H
New Mexico	Hobbs Field Station	NMNM094969	MEWBOURNE OIL COMPANY	QUERECHO 23/26 B3CN FED COM	1H
New Mexico	Hobbs Field Station	NMNM094969	MEWBOURNE OIL COMPANY	QUERECHO 23/26 B3CN FED COM	1H
New Mexico	Oklahoma Field Office	TXNM103311	LEGACY RESERVES OPERATING LP	USA COTHROM UNIT A10	10H
New Mexico	Oklahoma Field Office	TXNM120954	RAVEN FOREST OPERATING, LLC	RAVEN FOREST UNIT	12-1
New Mexico	Roswell Field Office	NMNM101106	MACK ENERGY CORPORATION	FEDERAL A	1
New Mexico	Roswell Field Office	NMNM138833	MACK ENERGY CORPORATION	LISA C FEDERAL	5
New Mexico	Roswell Field Office	NMNM065397	MACK ENERGY CORPORATION	MEADOW LAKE FEDERAL COM	1H
New Mexico	Roswell Field Office	NMNM138832	MACK ENERGY CORPORATION	SARILYN FEDERAL	1
New Mexico	Roswell Field Office	NMNM121950	MACK ENERGY CORPORATION	WINDSOR FEDERAL COM	1H
Utah	Vernal Field Office	UTU075675	FINLEY RESOURCES INCORPORATED	AURORA FEDERAL	06-15-7-20
Utah	Vernal Field Office	UTU075675	FINLEY RESOURCES INCORPORATED	AURORA FEDERAL	06-16-7-20
Utah	Vernal Field Office	UTU075675	FINLEY RESOURCES INCORPORATED	AURORA FEDERAL	07-02-7-20
Utah	Vernal Field Office	UTU075092	FINLEY RESOURCES INCORPORATED	AURORA FEDERAL	09-15-7-20

Utah	Vernal Field Office	UTU075092	FINLEY RESOURCES INCORPORATED	AURORA FEDERAL	09-16-7-20
Utah	Vernal Field Office	UTU074417	FINLEY RESOURCES INCORPORATED	AURORA FEDERAL	28-08-7-20
Utah	Vernal Field Office	UTU080689	FINLEY RESOURCES INCORPORATED	AURORA FEDERAL	28-09-7-20
Wyoming	Buffalo Field Office	WYW9584	ANSCHUTZ EXPLORATION CORPORATION	TEX FED	4271-17-20-15E NH
Wyoming	Buffalo Field Office	WYW9584	ANSCHUTZ EXPLORATION CORPORATION	TEX FED	4271-17-20-15W NH
Wyoming	Buffalo Field Office	WYW9584	ANSCHUTZ EXPLORATION CORPORATION	TEX FED	4271-17-20-16E NH
Wyoming	Buffalo Field Office	WYW9584	ANSCHUTZ EXPLORATION CORPORATION	TEX FED	4271-17-20-16W NH
Wyoming	Buffalo Field Office	WYW143545	BALLARD PETROLEUM HOLDINGS LLC	GDU FED	12-32-28 PH
Wyoming	Casper Field Office	WYW045115	ANADARKO E&P ONSHORE LLC	HUCKLEBERRY FED	3570-12-T4H
Wyoming	Casper Field Office	WYW66006	ANSCHUTZ EXPLORATION CORPORATION	JACK FED	3671-18-19-15 TH
Wyoming	Casper Field Office	WYW66006	ANSCHUTZ EXPLORATION CORPORATION	JACK FED	3671-18-19-15E NH
Wyoming	Casper Field Office	WYW66006	ANSCHUTZ EXPLORATION CORPORATION	JACK FED	3671-18-19-16E NH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	JACK FED	3671-18-6-1E NH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	JACK FED	3671-18-6-2 TH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	JACK FED	3671-18-6-2E NH
Wyoming	Casper Field Office	WYW67031	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-21-13 TH
Wyoming	Casper Field Office	WYW67031	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-21-13 TH
Wyoming	Casper Field Office	WYW67031	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-21-13W NH
Wyoming	Casper Field Office	WYW67031	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-21-13W NH
Wyoming	Casper Field Office	WYW67031	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-21-14W NH
Wyoming	Casper Field Office	WYW67031	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-21-14W NH
Wyoming	Casper Field Office	WYW33782	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-4-3W NH
Wyoming	Casper Field Office	WYW33782	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-4-3W NH
Wyoming	Casper Field Office	WYW33782	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-4-4 TH
Wyoming	Casper Field Office	WYW33782	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-4-4 TH
Wyoming	Casper Field Office	WYW33782	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-4-4W NH
Wyoming	Casper Field Office	WYW33782	ANSCHUTZ EXPLORATION CORPORATION	KALI FED	3671-16-4-4W NH
Wyoming	Casper Field Office	WYW181747	ANSCHUTZ EXPLORATION CORPORATION	MIDGE FED	4171-36-24-4 TH

Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	TINY FED	3671-17-20-15 TH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	TINY FED	3671-17-20-15E NH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	TINY FED	3671-17-20-16E NH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	TINY FED	3671-17-5-1E NH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	TINY FED	3671-17-5-2 TH
Wyoming	Casper Field Office	WYW33783	ANSCHUTZ EXPLORATION CORPORATION	TINY FED	3671-17-5-2E NH
Wyoming	Casper Field Office	WYW183609	BRIGHT ROCK ENERGY LLC	BUSTER FEDERAL	3502 35-73 TR-BH
Wyoming	Casper Field Office	WYW153113	DEVON ENERGY PRODUCTION COMPANY LP	DILTS FED	15-033972-3XPH
Wyoming	Casper Field Office	WYW88287	IMPACT EXPLORATION AND PRODUCTION LLC	DORADO	534 10-3H
Wyoming	Casper Field Office	WYW88287	IMPACT EXPLORATION AND PRODUCTION LLC	DORADO	547 10-3H
Wyoming	Casper Field Office	WYW172977	IMPACT EXPLORATION AND PRODUCTION LLC	GEMINI	506 11-2H
Wyoming	Casper Field Office	WYW172977	IMPACT EXPLORATION AND PRODUCTION LLC	GEMINI	519 11-2H
Wyoming	Casper Field Office	WYW172977	IMPACT EXPLORATION AND PRODUCTION LLC	PISCES	409 14-23H
Wyoming	Casper Field Office	WYW164925	IMPACT EXPLORATION AND PRODUCTION LLC	VIRGO	534 33-28H
Wyoming	Casper Field Office	WYW164925	IMPACT EXPLORATION AND PRODUCTION LLC	VIRGO	547 33-28H
Wyoming	Casper Field Office	WYW182092	SOUTHWESTERN PRODUCTION CORPORATION	BFU FED	21-31V
Wyoming	Casper Field Office	WYW182092	SOUTHWESTERN PRODUCTION CORPORATION	BFU FED	21-31V
Wyoming	Casper Field Office	WYW182092	SOUTHWESTERN PRODUCTION CORPORATION	BFU FED	31-31V
Wyoming	Casper Field Office	WYW182092	SOUTHWESTERN PRODUCTION CORPORATION	BFU FED	31-31V
Wyoming	Pinedale Field Office	WYW126100	JONAH ENERGY LLC	GANNETT	01-500H
Wyoming	Pinedale Field Office	WYW126100	JONAH ENERGY LLC	GANNETT	02-500H
Wyoming	Pinedale Field Office	WYW133051	JONAH ENERGY LLC	WOLVERINE	03-500H
New Mexico	Carlsbad Field Office	NMNM029276	REDWOOD OPERATING LLC	SPARKPLUG 17 FEDERAL COM	1H
New Mexico	Carlsbad Field Office	NMNM029276	REDWOOD OPERATING LLC	SPARKPLUG 17 FEDERAL COM	2H
New Mexico	Carlsbad Field Office	NMNM031186	REDWOOD OPERATING LLC	SPARKPLUG 17 FEDERAL COM	3H
New Mexico	Oklahoma Field Office	TXNM108074	XTO ENERGY INCORPORATED	BARCOO	B2

New Mexico	Oklahoma Field Office	TXNM108074	XTO ENERGY INCORPORATED	BARCOO	B3
New Mexico	Oklahoma Field Office	TXNM108074	XTO ENERGY INCORPORATED	BARCOO	B4
New Mexico	Oklahoma Field Office	TXNM108092	XTO ENERGY INCORPORATED	CONGO	B2
New Mexico	Oklahoma Field Office	TXNM108092	XTO ENERGY INCORPORATED	CONGO	B3
New Mexico	Oklahoma Field Office	TXNM108066	XTO ENERGY INCORPORATED	OB	B1
New Mexico	Oklahoma Field Office	TXNM108066	XTO ENERGY INCORPORATED	OB	B2
New Mexico	Oklahoma Field Office	TXNM71594	XTO ENERGY INCORPORATED	TIBER	B1
New Mexico	Oklahoma Field Office	TXNM71594	XTO ENERGY INCORPORATED	TIBER	B2
New Mexico	Roswell Field Office	NMNM132939	MACK ENERGY CORPORATION	DAWSON CITY FEDERAL	1
Wyoming	Casper Field Office	WYW172977	IMPACT EXPLORATION AND PRODUCTION LLC	DORADO	519 10-3H
Wyoming	Lander Field Office	WYW178032	ZAVANNA RESOURCES LLC	HOODOO CREEK	42-10-93
Wyoming	Worland Field Office	WYC043968A	MERIT ENERGY COMPANY LLC	ATHERLY	13
Wyoming	Worland Field Office	WYC044005A	MERIT ENERGY COMPANY LLC	BASTON A	40
Wyoming	Worland Field Office	WYC044005B	MERIT ENERGY COMPANY LLC	BASTON B	40
Wyoming	Worland Field Office	WYC044005B	MERIT ENERGY COMPANY LLC	BASTON B	40
Wyoming	Worland Field Office	WYC044024B	MERIT ENERGY COMPANY LLC	CACTUS B	11
Wyoming	Worland Field Office	WYC067458	MERIT ENERGY COMPANY LLC	OSTLAND	10
Wyoming	Worland Field Office	WYC067458	MERIT ENERGY COMPANY LLC	OSTLAND	10
Wyoming	Worland Field Office	WYC044026A	MERIT ENERGY COMPANY LLC	ROUSSEAU	20
Wyoming	Worland Field Office	WYC044026A	MERIT ENERGY COMPANY LLC	ROUSSEAU	21
		NMNM94118	TEST OPERATOR	BL FED LA MULTI	11-09-2021

1. Incremental increases in fossil fuel development are significant under NEPA and require a programmatic EIS to assess compatibility with the U.S. goal of limiting warming to 1.5 Celsius. Pending that, BLM should suspend new APD approvals to avoid the worst dangers from climate change.

BLM is responsible for the management of nearly 700 million acres of federal onshore subsurface minerals. The ultimate downstream greenhouse gas (“GHG”) emissions from fossil fuel extraction of federally managed minerals by private leaseholders account for 23% of total United States GHG emissions and 27% of all energy-related GHG emissions. Despite this, the

federal fossil fuel programs—including the federal oil, gas, and coal programs under BLM’s purview—have never faced public and environmental review under NEPA or FLPMA to assess their compatibility with U.S. climate goal of limiting warming to 1.5 degrees Celsius, or their contribution to climate change impacts. For reasons explained below, even incremental expansions in fossil fuel development are significant and significantly controversial under NEPA. BLM must undertake a programmatic EIS to assess the compatibility of any additional expansion of federal fossil fuel development with the U.S. and international goal of limiting warming to 1.5 Celsius. BLM should suspend issuance of these and all other APDs pending completion of such a review.

Scientific research has established that there is no room in the global carbon budget for new fossil fuel extraction if we are to avoid the worst dangers from climate change. Instead, new fossil fuel production and infrastructure must be halted, and much existing production must be phased out to meet the Paris Agreement climate limits and avoid catastrophic climate damages. Although the United States withdrew from the Paris Agreement under President Trump, President Biden has already taken action to have the United States rejoin the agreement. Under the Paris Agreement, countries commit to holding the long-term global average temperature “to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”¹ The Paris Agreement established the 1.5°C climate limit given the evidence that 2°C of warming would lead to catastrophic climate harms.²

Scientific research has estimated the global carbon budget—the remaining amount of carbon dioxide that can be emitted — for maintaining a likely chance of meeting the Paris climate limits, providing clear benchmarks for United States and global climate action.³ The Intergovernmental Panel on Climate Change (“IPCC”) Sixth Assessment updated the remaining carbon budget from the beginning of 2020 at 400 GtCO₂ for a 67% probability of meeting the

¹ United Nations Framework Convention on Climate Change, Conference of the Parties, Nov. 30-Dec. 11, 2015, Adoption of the Paris Agreement Art. 2, U.N. Doc. FCCC/CP/2015/L.9 (December 12, 2015), <http://unfccc.int/resource/docs/2015/cop21/eng/l09.pdf> (“Paris Agreement”). The United States signed the Paris Agreement on April 22, 2016 as a legally binding instrument through executive agreement, and the treaty entered into force on November 4, 2016.

² Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), <http://www.ipcc.ch/report/sr15/>.

³ The 2018 IPCC special report on *Global Warming of 1.5°C* estimated the carbon budget for a 66 percent probability of limiting warming to 1.5°C at 420 GtCO₂ and 570 GtCO₂ from January 2018 onwards, depending on the temperature dataset used. See Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), at SPM-16.

1.5°C limit and 500 GtCO₂ for a 50% probability of 1.5°C.⁴ At the current global emissions rate of 42 GtCO₂ per year, the entire global carbon budget would be used up in just 10 to 12 years. Notably, the U.S. carbon budget is far smaller than the global carbon budget. Most estimates of the remaining U.S. carbon budget consistent with keeping temperature rise below 1.5°C are negative or near zero, depending on the equity principles used to apportion the global budget across countries.⁵

Importantly, a 2016 global analysis found that the carbon emissions that would be released from burning the oil, gas, and coal in the world's currently operating fields and mines would fully exhaust and exceed the global carbon budget consistent with staying below 1.5°C.⁶ The reserves in currently operating oil and gas fields alone, even excluding coal mines, would likely lead to warming beyond 1.5°C.⁷ An important conclusion of the analysis is that no new fossil fuel extraction or infrastructure should be built, and governments should grant no new permits for extraction and infrastructure. Furthermore, many of the world's existing oil and gas fields and coal mines will need to be closed before their reserves are fully extracted in order to limit warming to 1.5°C.⁸ In short, the analysis established that there is no room in the carbon budget for new fossil fuel extraction or infrastructure anywhere, including in the United States, and much existing fossil fuel production must be phased out to avoid the catastrophic damages from climate change.⁹

⁴ Intergovernmental Panel on Climate Change, Summary for Policymakers In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (2021), <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/> at SPM-38.

⁵ Van den Berg, Nicole et al., Implications of various effort-sharing approaches for national carbon budgets and emission pathways, *Climatic Change* 162: 1805-1822 (2020), <https://link.springer.com/article/10.1007%2Fs10584-019-02368-y>; Dooley, Kate et al., Ethical choices behind quantifications of fair contributions under the Paris Agreement, *11 Nature Climate Change* 300 (2021), <https://www.nature.com/articles/s41558-021-01015-8>.

⁶ Oil Change International, *The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (September 2016), <http://priceofoil.org/2016/09/22/the-skys-limit-report/> at Table 3. According to this analysis, the CO₂ emissions from developed reserves in existing and under-construction global oil and gas fields and existing coal mines are estimated at 942 Gt CO₂, which vastly exceeds the 1.5°C-compatible carbon budget estimated in the 2018 IPCC report on *Global Warming of 1.5°C* at 420 GtCO₂ to 570 GtCO₂.

⁷ The CO₂ emissions from developed reserves in currently operating oil and gas fields alone are estimated at 517 Gt CO₂, which would likely exhaust the 1.5°C-compatible carbon budget estimated in the 2018 IPCC report on *Global Warming of 1.5°C* at 420 GtCO₂ to 570 GtCO₂.

⁸ Oil Change International, *The Sky's Limit California: Why the Paris Climate Goals Demand That California Lead in a Managed Decline of Oil Extraction* (2018), <http://priceofoil.org/ca-skys-limit-at-7-13>.

⁹ This conclusion was reinforced by the IPCC Fifth Assessment Report which estimated that global fossil fuel reserves exceed the remaining carbon budget (from 2011 onward) for staying below 2°C (a target incompatible with the Paris Agreement) by 4 to 7 times, while fossil fuel resources exceed the carbon budget for 2°C by 31 to 50 times. See Bruckner, Thomas et al., 2014: *Energy Systems in Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press (2014), at Table 7.2.

Other studies issued since then reinforce these findings. The United Nations *Production Gap Reports* found that governments plan to produce more than twice the amount of fossil fuels in 2030 than would be consistent with limiting warming to 1.5°C.¹⁰ According to the U.N. analyses, fossil fuel producers are planning an average increase of 2% per year in production, which by 2030 would result in more than double the production consistent with the 1.5°C limit. Instead, to follow a 1.5°C-consistent pathway, the world's governments will need to decrease fossil fuel production by roughly 6% per year between 2020 and 2030, including annual production declines of 11% for coal, 4% for oil and 3% for gas.

The 2021 *Fossil Fuel Exit Strategy* analysis similarly confirms that ending fossil fuel expansion and the early phase-out of existing extraction is necessary to meet the 1.5°C limit.¹¹ The analysis concluded that even if all new fossil fuel extraction were halted, in 2030 emissions from existing fossil fuel production would be 66% higher than what is needed to limit temperature rise to 1.5°C. The report estimated that global fossil fuel production will need to decline by an average of 9.5% for coal, 8.5% for oil and 3.5% for gas per year between 2021 and 2030 to remain aligned with 1.5°C. The authors emphasized that “more fossil fuels are already being produced than what is needed, as the world has more than enough renewable energy resources that can be scaled up rapidly enough to meet the energy demands of every person in the world without any shortfall in global energy generation.” As a result, many existing fossil fuel projects are already obsolete and risk becoming stranded assets as they simply are not needed to meet demand and cannot compete with renewable energy.

In addition, a 2021 analysis concluded that globally at least 89% of coal reserves, 58% of oil reserves, and 59% of gas reserves must be kept in the ground in order to have even a 50-50 chance of meeting a 1.5°C limit.¹²

Scientific research makes clear that the United States, as a dominant driver in expanding global fossil production, must halt new fossil fuel extraction and infrastructure and rapidly phase out existing production and infrastructure to avoid jeopardizing our ability to meet the Paris climate limits.¹³ A 2021 analysis concluded that U.S. oil and gas production is poised to expand by the largest absolute increase globally by 2030, more than twice as much as any other

¹⁰ SEI, IISD, ODI, E3G, and UNEP, *The Production Gap: The discrepancy between countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C* (2020), <http://productiongap.org/>; SEI, IISD, ODI, E3G, and UNEP, *The Production Gap Report 2021* (2021), <http://productiongap.org/2021report>.

¹¹ Teske, Sven & Sarah Niklas, *Fossil Fuel Exit Strategy: An orderly wind down of coal, oil and gas to meet the Paris Agreement* (June 2021), <https://fossilfuel treaty.org/exit-strategy>.

¹² Welsby, Dan et al., *Unextractable fossil fuels in a 1.5 °C world*, 597 *Nature* 230 (2021), <https://doi.org/10.1038/s41586-021-03821-8>.

¹³ Oil Change International, *Drilling Toward Disaster: Why U.S. Oil and Gas Expansion Is Incompatible with Climate Limits* (January 2019), <http://priceofoil.org/drilling-towards-disaster>.

country.¹⁴ A separate study found that the U.S. oil and gas industry is on track to account for 60% of the world's projected growth in oil and gas production between now and 2030—the time period over which the IPCC concluded that global carbon dioxide emissions should be roughly halved to meet the 1.5°C Paris Agreement limit.¹⁵ Between 2018 and 2050, the United States is poised to unleash the world's largest burst of CO₂ emissions from new oil and gas development—primarily from shale and largely dependent on fracking—estimated at 120 billion metric tons of CO₂ which is equivalent to the lifetime CO₂ emissions of nearly 1,000 coal-fired power plants. Based on a 1.5°C IPCC pathway, U.S. production alone would exhaust nearly 50% of the world's total allowance for oil and gas by 2030 and exhaust more than 90% by 2050. Additionally, if U.S. coal production is to be phased out over a timeframe consistent with equitably meeting the Paris goals, at least 70% of U.S. coal reserves in already-producing mines must stay in the ground. In short, if not curtailed, U.S. fossil fuel expansion will impede the world's ability to meet the Paris climate limits and preserve a livable planet.

Research on the carbon emissions locked in U.S. fossil fuels similarly establishes that the U.S. must halt new fossil fuel production and rapidly phase out existing production to avoid the worst dangers of climate change. One quarter of total U.S. greenhouse gas emissions comes from the extraction and end-use combustion of fossil fuels produced on federal lands alone—not including non-federal lands.¹⁶ A 2015 analysis estimated that recoverable fossil fuels from U.S. federal lands would release up to 349 to 492 GtCO₂eq of carbon emissions, if fully extracted and burned.¹⁷ Of that amount, already leased fossil fuels would release 30 to 43 GtCO₂eq of emissions, while as yet unleased fossil fuels would emit 319 to 450 GtCO₂eq of emissions. Thus, the carbon emissions from already leased fossil fuel resources on federal lands alone (30 to 43 GtCO₂eq) would exceed any remaining U.S. carbon budget for a 1.5°C limit¹⁸ and exhaust ~10% of the remaining *global* carbon budget for 1.5°C.¹⁹ The potential carbon emissions from unleased federal fossil fuel resources (319 to 450 GtCO₂eq) would exhaust the entire global carbon budget for limiting warming to 1.5°C. This does not include the additional carbon emissions that will be

¹⁴ Achakulwisut, Ploy & Peter Erickson, Trends in fossil fuel extraction: Implications for a shared effort to align global fossil fuel production with climate limits, Stockholm Environment Institute Working Paper (April 2021), www.sei.org/publications/trends-in-fossil-fuel-extraction/ at Figure 3.

¹⁵ Intergovernmental Panel on Climate Change, Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (2018), <http://www.ipcc.ch/report/sr15/> at SPM-15.

¹⁶ Merrill, Matthew D. et al., Federal lands greenhouse gas emissions and sequestration in the United States—Estimates for 2005–14: U.S. Geological Survey Scientific Investigations Report 2018–5131 (2018) at 8.

¹⁷ Ecoshift Consulting, et al., The Potential Greenhouse Gas Emissions of U.S. Federal Fossil Fuels, Prepared for Center for Biological Diversity & Friends of the Earth (2015).

¹⁸ See for example, Van den Berg, Nicole et al., Implications of various effort-sharing approaches for national carbon budgets and emission pathways, *Climatic Change* 162: 1805-1822 (2020), <https://link.springer.com/article/10.1007%2Fs10584-019-02368-y> ([showing a range for the U.S. carbon budget for 2010-2100 of ~10 GtCO₂ to -90 GtCO₂ for a 1.5°C limit at Figure 4](#)).

¹⁹ As noted above, the IPCC Sixth Assessment Report updated the remaining global carbon budget from the beginning of 2020 at 400 GtCO₂ for a 67% probability of meeting the 1.5°C limit.

emitted from fossil fuels extracted on non-federal lands, estimated up to 500 GtCO₂eq if fully extracted and burned. In contrast, a nationwide federal fossil fuel leasing ban would reduce carbon emissions by an estimated 280 million tons per year, ranking among the most ambitious U.S. federal climate policy proposals in recent years.²⁰

Moreover, the Energy Information Administration (“EIA”) released its Annual Energy Outlook for 2020 that contains energy-related projections through 2050. The report indicates that without significant policy changes and a rapid transition away from fuels, annual U.S. greenhouse gas emissions are projected to begin rising again by the 2030s.²¹ This means that the United States will not be anywhere close to where scientists say it needs to be to reduce its contributions to the climate crisis and avert the most catastrophic impacts of climate change.

These analyses highlight that the United States has an urgent responsibility to lead in the transition from fossil fuel production to 100% clean energy, as a wealthy nation with ample financial resources and technical capabilities, and due to its dominant role in driving climate change and its harms. The U.S. is currently the world’s largest oil and gas producer and second-largest coal producer.²² The U.S. is also the world’s largest historic emitter of greenhouse gas pollution, responsible for 25% of cumulative global CO₂ emissions since 1870, and is currently the world’s second highest emitter on an annual basis and highest emitter on a per capita basis.²³ The U.S. must focus its resources and technology to rapidly phase out extraction while investing in a just transition for affected workers and communities currently living on the front lines of the fossil fuel industry and its pollution.²⁴

Ending the approval of new fossil fuel production and infrastructure is also critical for preventing “carbon lock-in,” where approvals and investments made now can lock in decades-worth of fossil fuel extraction that we cannot afford. New approvals for wells, mines, and fossil fuel infrastructure — such as pipelines and marine and rail import and export terminals — require upfront investments that provide financial incentives for companies to continue production for decades into the future.²⁵ As summarized by Green and Denniss (2018):

²⁰ Erickson, Peter & Michael Lazarus, Would constraining U.S. fossil fuel production affect global CO₂ emissions? A case study of US leasing policy, 150 *Climatic Change* 29 (2018).

²¹ U.S. Energy Information Administration, Annual Energy Outlook 2020 with projections to 2050 (Jan. 2020), <https://www.eia.gov/outlooks/aeo/pdf/AEO2020%20Full%20Report.pdf>.

²² SEI, IISD, ODI, E3G, and UNEP, The Production Gap Report 2021 (2021), <http://productiongap.org/2021report> at Table 4.1.

²³ Le Quéré, Corinne et al., Global carbon budget 2018, 10 *Earth System Science Data* 2141 (2018) at 2163 and Figure 5, 2167; Global Carbon Project, Global Carbon Budget 2018 (Dec. 5 2018), https://www.globalcarbonproject.org/carbonbudget/18/files/GCP_CarbonBudget_2018.pdf at 19 (Historical cumulative fossil CO₂ emissions by country).

²⁴ Piggot, Georgia et al., Realizing a just and equitable transition away from fossil fuels, Discussion brief, Stockholm Environment Institute (January 2019), <https://www.sei.org/publications/just-and-equitable-transition-fossil-fuels/>.

²⁵ Davis, Steven J. and Robert H. Socolow, Commitment accounting of CO₂ emissions, 9 *Environmental Research Letters* 084018 (2014); Erickson, Peter et al., Assessing carbon lock-in, 10 *Environmental*

When production processes require a large, upfront investment in fixed costs, such as the construction of a port, pipeline or coalmine, future production will take place even when the market price of the resultant product is lower than the long-run opportunity cost of production. This is because rational producers will ignore ‘sunk costs’ and continue to produce as long as the market price is sufficient to cover the marginal cost (but not the average cost) of production. This is known as ‘lock-in.’²⁶

Given the long-lived nature of fossil fuel projects, ending the approval of new fossil fuel projects is necessary to avoid the lock-in of decades of fossil fuel production and associated emissions.

Other research has separately demonstrated that construction of new fossil fuel infrastructure projects, including but not limited to pipelines, import and export terminals, storage facilities, refineries, power plants and petrochemical plants, is also inconsistent with meeting the 1.5°C limit.²⁷ This research shows that the committed carbon emissions from *existing* fossil fuel infrastructure in the energy and industrial sectors exceed the carbon budget for limiting warming to 1.5°C, meaning that no new fossil infrastructure can be built and much existing infrastructure must be *retired early* to avoid catastrophic climate harms.²⁸

The climate emergency demands immediate action to establish the maximum production rate and phase-down the rates of oil and gas well production. Indeed, the best available science on climate change demonstrates that we not only need to end the federal fossil fuel leasing program, but phase-down existing production as well. As recently stated by several scientific experts, “[t]he scale of threats to the biosphere and all its lifeforms — including humanity — is in fact so great that it is difficult to grasp for even well-informed experts” and our planet faces a “ghastly future” unless swift action is taken to reverse the climate crisis, including “a rapid exit

Research Letters 084023 (2015); Erickson, Peter et al., Carbon lock-in from fossil fuel supply infrastructure, Stockholm Environment Institute, Discussion Brief (2015); Seto, Karen C. et al., Carbon Lock-In: Types, Causes, and Policy Implications, 41 Annual Review of Environmental Resources 425 (2016); Green, Fergus and Richard Denniss, Cutting with both arms of the scissors: the economic and political case for restrictive supply-side climate policies, 150 Climatic Change 73 (2018).

²⁶ Green, Fergus and Richard Denniss, Cutting with both arms of the scissors: the economic and political case for restrictive supply-side climate policies, 150 Climatic Change 73 (2018) at 78.

²⁷ Tong, D. et al., Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target, 572 Nature 373 (2019); Smith, C.J. et al., Current fossil fuel infrastructure does not yet commit us to 1.5 °C warming, 10 Nature Communications 101 (2019); Pfeiffer, Alexander et al., Committed emissions from existing and planned power plants and asset stranding required to meet the Paris Agreement, 13 Environmental Research Letters 054019 (2018).

²⁸ Tong, D. et al., Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target, 572 Nature 373-377 (2019).

from fossil fuel use.”²⁹ In light of this reality, not taking the petitioned actions would constitute a gross dereliction of the Secretary’s obligation to ensure our public lands and waters are managed consistent with protection of the environment and national energy needs.

2. BLM’s approval of APDs absent environmental and public review under NEPA and FLPMA violates NEPA

BLM’s regulations regarding APDs and NOSs are found at 43 C.F.R. Part 3162. Pursuant to these, BLM is required to post an APD or NOS “for public inspection at least 30 days before action to approve the Application for Permit to Drill[.]” 43 C.F.R. § 3162.3-1(g) (emphasis added). BLM must post information on the company/operator submitting the APDs, the well location description or maps, and any substantial modifications to the lease terms. *Id.* And, “[u]pon initiation of the Application for Permit to Drill process,” BLM must “consult with the appropriate Federal surface management agency and with other interested parties as appropriate.” *Id.* § 3162.3-1(h).

Similarly, NEPA regulations mandate that agencies “shall to the fullest extent possible . . . [e]ncourage and facilitate public involvement in the decisions which affect the quality of the human environment.” 40 C.F.R. § 1500.2(d). “NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.” *Id.* § 1500.1(b) (emphasis added). *See also id.* § 1501.4(b) (Agencies must “involve . . . the public, to the extent practicable”); *id.* § 1506.6 (“Agencies shall: . . . (a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures”). They also provide that “NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. § 1500.1(b). BLM regulations also plainly require the agency to “prepare an environmental record of review or an environmental assessment” “[b]efore approving any Application for Permit to Drill submitted pursuant to § 3162.3-1 of this title[.]” 43 C.F.R. § 3162.5-1.

FLPMA also requires meaningful public participation in public lands management decisions. 43 U.S.C. § 1739(e). Specifically, “the Secretary [of Interior] shall establish procedures, including public hearings where appropriate, to give the Federal, State, and local governments and the public adequate notice and an opportunity to comment upon the formulation of standards and criteria for, and to participate in, the preparation and execution of plans and programs for, and the management of, the public lands.” *Id.* (emphasis added).

²⁹ Bradshaw, C., et al. 2021. Understanding the Challenges of a Ghastly Future. *Front. Conserv. Sci.* Vol. 1, Article 615419.

BLM's practice of issuing drilling permits without an opportunity for public comment violates NEPA and FLPMA. While BLM is required by law to post a list of pending APDs and NOSs for a 30-day period, *see* 43 CFR 3162.3-1, this public notice does not constitute a comment period. BLM does not solicit public comment during the 30-day public posting period, nor does it give the public sufficient information about the proposed drilling on which to comment. The information on AFMSS 2³⁰ is limited to: (i) the company/operator name; (ii) the well name/number; (iii) and the well location. The public lacks access to any information about the drilling proposal itself--including the actual application or notice of staking, number of pads and wells per pad, associated infrastructure, total surface disturbance, mitigation measures, and any proposed Conditions of Approval (COA)--or the agency's draft Environmental Assessment (EA) or Environmental Impact Statement (EIS). Even assuming BLM did invite comments, the public cannot reasonably be expected to formulate helpful comments and inform the agency decision-making process without access to such information.

Compliance with the 30-day public posting period on AFMSS 2 does not satisfy BLM's legal obligation to offer pre-decisional opportunities for public comment. Because BLM is not providing for public engagement that results in legitimate review and consideration of public comment, the agency must immediately cease all work on APDs/NOSs to ensure compliance with BLM regulations, NEPA, and FLPMA. Approval of APDs absent public notice and participation requirements of both NEPA and FLPMA violates NEPA.

3. BLM must analyze the direct, indirect and cumulative impacts of greenhouse gas emissions

BLM must quantify the direct, indirect or cumulative greenhouse gas pollution that would result from the construction and operation of the proposed wells and analyze the impacts of those emissions on climate change.

NEPA requires BLM to consider existing, new, and revised climate science and policy as well as quantify and discuss the significance of the direct, indirect, and cumulative greenhouse gases generated by its proposed action. 40 C.F.R. §§ 1500.1 (requiring "high quality information" and "accurate scientific analysis"), 1502.16 (outlining what's required in an impacts analysis), 1508.7 (defining cumulative impacts), 1508.8 (defining direct and indirect impacts).

Federal courts hold that consideration of GHGs is clearly within the scope of required NEPA review. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008):

³⁰ BLM IM-074 requires posting on AFMSS 2, implementing an amendment to Onshore Order 1. BLM IM-074 is available at <https://www.blm.gov/policy/im-2017-074>. The amendment to Onshore Order 1 is available at <https://www.gpo.gov/fdsys/pkg/FR-2017-01-10/pdf/2016-31752.pdf>.

The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct. Any given rule setting a CAFE standard might have an “individually minor” effect on the environment, but these rules are “collectively significant actions taking place over a period of time” *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9th Cir. 2008)(quoting 40 C.F.R. § 1508.7).

Courts have ruled that federal agencies should consider indirect GHG emissions resulting from agency policy, regulatory, planning, leasing, and permitting decisions. For example, agencies cannot ignore the indirect air quality and climate change impact of decisions that would open up access to coal reserves. *See Mid States Coal. For Progress v. Surface Transp. Bd.*, 345 F.3d 520, 532, 550 (8th Cir. 2003); *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F.Supp. 3d 1174, 1197-98 (D.Colo. 2014).

Failure to undertake review under NEPA would run afoul of recent cases holding that downstream greenhouse gas emissions are reasonably foreseeable indirect impacts of a federal fossil fuel action, that an agency must estimate downstream greenhouse gas emissions or explain why it could not, and finally, that a cumulative impacts analysis must include considerations of downstream greenhouse gas emissions under NEPA. *Wilderness Workshop v. United States Bureau of Land Mgmt.*, 342 F. Supp. 3d 1145, 1155 (D. Colo. 2018); *San Juan Citizens All. v. United States Bureau of Land Mgmt.*, 326 F. Supp. 3d 1227, 1244 (D.N.M. 2018); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 73 (D.D.C. 2019); *W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt.*, No. CV 16-21-GF-BMM, 2018 WL 1475470, at *13 (D. Mont. 2018); *Sierra Club v. Fed. Energy Regulatory Comm'n*, 867 F.3d 1357, 1374 (D.C. Cir. 2017); *WildEarth Guardians v. Zinke*, No. CV 17-80-BLG-SPW-TJC, 2019 WL 2404860 at *12 (D. Mont. Feb. 11, 2019); *Indigenous Envtl. Network v. United States Dep't of State*, 347 F. Supp. 3d 561, 578-579 (D. Mont. 2018).

Failing to quantify the direct, indirect, and cumulative greenhouse gas pollution and resulting climate impacts of well construction and operation would violate NEPA and its implementing regulations.

4. BLM must analyze and disclose other direct, indirect and cumulative impacts of new well approvals

BLM’s NEPA analysis for these wells should address the following issues within an EA or EIS that is offered for public comment per the discussion above:

- A. *Will these be vertical or horizontal wells? Will there be more than one well on a pad? What associated infrastructure (roads, power lines, gathering pipelines, generators, compressors, tanks, wastewater pits, injection wells, etc.) is planned?*

- B. *Will hydraulic fracturing or acid fracturing be used? If so, which proppants will be used and what will be the chemical composition of the fracking fluid?*
- C. *Will enhanced oil recovery techniques (EOR) be used? Which specific techniques—waterflooding, CO₂, thermal (i.e., steam injection), or chemical EOR? To what extent are oil seeps from underground (or “surface expressions”) a risk?*
- D. *Which endangered, threatened, candidate, sensitive, or other special-status wildlife and plant species are found at the well and associated infrastructure sites? How will BLM ensure these special-status species are protected and impacts to them are fully mitigated? What wildlife and plant surveys will be required for the well and associated infrastructure sites? What type of wildlife monitoring will be required for these wells and associated infrastructure?*
- E. *What impacts will these wells and associated infrastructure have on wildlife, including special-status species, migratory birds, and herpetological species? Will any take permits for special-status wildlife species be required? Will these wells and associated infrastructure intersect with wildlife migration corridors, and if so, how will they affect migration?*
- F. *What will be the impacts of the proposed wells and associated infrastructure on greater or Gunnison sage-grouse and/or lesser prairie chicken, their designated and seasonal habitat, and leks? How will these impacts be monitored, minimized, mitigated, and rectified? How will BLM ensure that there are no remaining residual effects to greater sage-grouse and their habitat during construction and operation, and after reclamation?*
- G. *What is the total amount of surface disturbance in the area of these wells and associated infrastructure? If the density and disturbance calculation tool (DDCT) calculation process is applicable to these wells and associated infrastructure, how much additional surface disturbance is allowable based on the density and disturbance calculation tool (DDCT) calculation process?*
- H. *What are the current noise levels at these well sites? How much additional noise will constructing and operating these wells and their associated infrastructure add and how will BLM monitor it? What will be the impact of that additional noise on greater sage-grouse and other wildlife? If these wells and associated infrastructure are in greater sage-grouse habitat, the BLM must conduct additional noise monitoring to determine baseline ambient noise levels. Depending on the wells’ and associated infrastructure’s distance from sage-grouse leks, existing ambient noise may already exceed thresholds shown to result in lek loss, thereby precluding further development. Under 43 C.F.R. § 3101.1-2, BLM has authority to require “such reasonable measures as may be required by the authorized officer to minimize adverse impacts to other resource values, land uses or users not addressed in the lease stipulations at the time operations are proposed.”*
- I. *How will these wells and associated infrastructure impact the functioning of riparian areas and plants and wildlife reliant on them?*
- J. *Will these proposed wells impact pronghorn antelope, mule deer, elk, or their habitat? If so, how will these impacts be minimized, rectified, and monitored? How will BLM ensure that there are no remaining residual effects to these wildlife and their habitat during construction and operation, and after reclamation? Which research studies and data is BLM basing its ungulate analysis for these wells and associated infrastructure on?*

- K. *How will BLM ensure that these wells and associated infrastructure implement and comply with BLM's Sensitive Species Policy, Waste Prevention Rule, and Onshore Oil and Gas Orders?*
- L. *What impacts will these wells and associated infrastructure have on cultural and historical resources? What cultural and historical resource mitigation and protection measures will be required for these wells and associated infrastructure?*
- M. *Are these wells located within grazing allotments? If so, which allotments are they and do they currently meet Standards for Rangeland Health? What impact will these wells and associated infrastructure have on the ability of these allotments to meet Standards for Rangeland Health?*
- N. *What technology will be used to provide power to these wells and associated infrastructure? If new overhead or buried electric power lines are being considered, BLM must also analyze the use of low-emission and distributed power generation options in their place. If new overhead or buried electric power lines are being considered, where would they be located and what would their impacts be?*
- O. *How will construction and operation of these wells and associated infrastructure affect air quality? How will those impacts be mitigated?*
- P. *BLM's NEPA analysis should include greenhouse gas emissions of the construction and operation of the wells and associated infrastructure, as well as the downstream use of the oil or gas produced. How will those emissions be mitigated?*
- Q. *What type of drilling rigs will BLM require for these wells? What technologies will be used to minimize surface disturbance?*
- R. *How will these wells and associated infrastructure impact visual resources and how will those impacts be mitigated?*
- S. *How will BLM apply the protective measures in the appropriate Resource Management Plans (RMP), as amended, to these wells and associated infrastructure? What are the lease stipulations that apply?*
- T. *How will wastewater from these wells be treated, recycled, and/or disposed of? What chemicals, heavy metals, and/or radioactive material will wastewater/produced water from these wells contain and what are potential impacts to natural resources if the treatment, recycling or disposal is faulty, for example if there are wastewater spills or contamination of groundwater? Will groundwater be monitored at these wells, and if so, how?*
- U. *Will these wells and associated infrastructure impact any surface waters, riparian areas, wetlands, or 100-year floodplains? If so, how will BLM ensure impacts are avoided, minimized, and fully mitigated?*
- V. *Will roads be constructed for these wells and what will be the impacts of those roads to natural and cultural resources? How will these roads be reclaimed after the wells are no longer in use?*
- W. *What impacts will these wells and associated infrastructure have to tall/dense habitat features?*
- X. *Which vegetation communities are currently at the well sites and sites of associated infrastructure? How will BLM ensure that interim and final site reclamation practices are well suited to these vegetation communities, are fully implemented, and fully reclaim*

the well sites and associated infrastructure sites? What reclamation seed mixes will be chosen and how were they selected?

- Y. How will BLM ensure that noxious weeds do not become established at the well sites and associated infrastructure sites? For which noxious weeds will BLM require management? What are the potential impacts of those management practices to wildlife, pollinators, and native vegetation?*
- Z. How will these wells and associated infrastructure impact soils and how will those impacts be mitigated?*
- AA. During construction of these wells and associated infrastructure, what dust reduction techniques will be used?*
- BB. What will be the cumulative impacts of these wells and associated infrastructure when considered with existing and reasonably foreseeable development and land management practices in the area?*
- CC. Does BLM propose to approve these wells, and if so, what are BLM's proposed Conditions of Approval?*
- DD. Do the well operators propose to operate any of these wells year round? If so, any exceptions, modifications, or waivers to lease stipulations that would be required should be disclosed and their potential impacts analyzed.*

5. BLM has a duty under FLPMA to avoid catastrophic climate change in oil and gas permitting decisions

BLM has a legal duty to avoid catastrophic climate change in oil and gas permitting decisions. Under FLPMA, BLM, in its decisions about whether and how to approve new permits to drill, must:

- Protect public land values including air and atmospheric, water resource, ecological, environmental, and scenic values, and to preserve and protect “certain public lands in their natural condition,” and “food and habitat for fish and wildlife” (43 U.S.C. §1701(a)(8));
- Account for “the long-term needs of future generations” (43 U.S.C. § 1702(c));
- Prevent “permanent impairment of the productivity of the land and quality of the environment” (43 U.S.C. § 1702(c)); and
- “[T]ake any action necessary to prevent unnecessary or undue degradation of the lands.” 43 U.S.C. § 1732(b).

These mandates, given the climate emergency and its past, current, and projected future harms, render approval of new fossil fuel infrastructure or development on public lands unjustifiable in fact, law or policy, as articulated in President Biden’s January 27, 2021 Executive Order 14008

on “Tackling the Climate Crisis at Home and Abroad” (“EO 14008”). That order recognizes that taking action to address the climate crisis is “more necessary and urgent than ever”:

The scientific community has made clear that the scale and speed of necessary action is greater than previously believed. There is little time left to avoid setting the world on a dangerous, potentially catastrophic, climate trajectory. Responding to the climate crisis will require both significant short-term global reductions in greenhouse gas emissions and net-zero global emissions by mid-century or before.

Id., Section 101. EO 14008 establishes national policy that places the climate crisis “at the center of U.S. foreign policy and national security.” *Id.* It sets forth policy to “organize and deploy the *full capacity* of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy.” *Id.*, section 201 (emphasis added). EO 14008 prioritizes bolstering climate change resilience: “The United States will also move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories.” *Id.*, section 101. This includes taking action to “conserve[] our lands, waters, and biodiversity” *id.*, section 201, and specifically to “achieve the goal of conserving at least 30 percent of our lands and waters by 2030” (the “30x30” goal or initiative). *Id.*, section 216. *See also id.*, section 215 (establishing Civilian Climate Corps Initiative, which “shall aim to conserve and restore public lands and waters,” “protect biodiversity,” and “address the changing climate,” among other things).

These policies, in combination with FLPMA’s mandates and well-established facts relating to the climate emergency and its past, ongoing, and potential future harms, militate strongly to avoid catastrophic climate change in oil and gas permitting decisions. Thus, based on site-specific NEPA reviews that rationally connect to FLPMA’s mandates, BLM must impose constraints on new well approvals to avoid catastrophic climate change and protect and advance the public interest. *See* Bruce. M Pendery, BLM’s Retained Rights: How Requiring Environmental Protection Fulfills Oil and Gas Lease Obligations, 40 *Envtl. L.* 599 (2010). This includes the robust use by BLM of conditions of approval to, in sequenced priority, avoid, mitigate, or compensate for climate, public lands, or community impacts. *See* 43 U.S.C. §§ 1701(a)(8), 1702(c), 1732(b); 43 C.F.R. § 3101.1-2; *Yates Petroleum Inc.*, 176 I.B.L.A. 144, 154 (2008) (upholding conditions of approval more stringent than provisions contained in the overarching resource management plan).

- a. BLM should analyze alternatives that avoid catastrophic climate change, including but not limited to a nationwide managed decline of production rates and greenhouse gas pollution consistent with avoiding 1.5 Celsius warming**

BLM should analyze alternatives that avoid catastrophic climate change, including a nationwide managed decline of federal fossil fuel production and greenhouse gas emissions consistent with the U.S. goal of limiting warming to 1.5 Celsius. In accord with the Mineral Leasing Act, the Secretary of the Interior Department, acting through BLM, can and should set forth a declining rate of production over time that can, alongside transition measures, accommodate lease rights but provide for an orderly phase-out of onshore fossil fuel production consistent with declining rates of emissions necessary to avoid 1.5 Celsius warming. These declining rates of productions and greenhouse gas emissions should be codified in Conditions of Approval for new permits to drill. The Mineral Leasing Act allows the Secretary of the Interior to “alter or modify from time to time the rate of prospecting and development and the quantity and rate of production under such plan.” Likewise, nearly all BLM leases for onshore oil and gas contain a clause which states that “Lessor reserves the right to specify rates of development and production in the public interest.” *See* U.S. Department of the Interior, Offer to Lease and Lease for Oil and Gas, Form 3100-11 (Oct. 2008).

6. BLM Must Undertake Formal Consultation with U.S. Fish and Wildlife Service Under the Endangered Species Act to Ensure Against Jeopardy of Listed Species

Congress enacted the Endangered Species Act (ESA) in 1973 to provide for the conservation of endangered and threatened fish, wildlife, plants and their natural habitats. 16 U.S.C § 1531, 1532. The ESA imposes substantive and procedural obligations on all federal agencies with regard to listed and proposed species and their critical habitats. *See id.* §§ 1536(a)(1), (a)(2) and (a)(4) and § 1538(a); 50 C.F.R. § 402. Under section 7 of the ESA, federal agencies must “insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined ... to be critical.” 16 U.S.C. § 1536(a)(2).

The definition of agency “action” is broad and includes “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies,” including programmatic actions. 50 C.F.R. § 402.02. Likewise, the “action area” includes “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” *Id.*

The duties in ESA section 7 are only fulfilled by an agency’s satisfaction of the consultation requirements that are set forth in the implementing regulations for section 7 of the ESA, and only after the agency lawfully complies with these requirements may an action that “may affect” a protected species go forward. *Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1055-57 (9th Cir. 1994). The action agency must initially prepare a biological assessment (BA) to “evaluate the potential effects of the proposed action” on listed species. 50 C.F.R. § 402.12. If

the action agency concludes that the proposed action is “not likely to adversely affect” a listed species that occurs in the action area, the Service must concur in writing with this determination. *Id.* §§ 402.13(a) and 402.14(b). If the Service concurs in this determination, then formal consultation is not required. *Id.* § 402.13(a). If the Service’s concurrence in a “not likely to adversely affect” finding is inconsistent with the best available data, however, any such concurrence must be set aside. *See id.* § 402.14(g)(8); 5 U.S.C. § 706(2). If the action agency concludes that an action is “likely to adversely affect” listed species or critical habitat, it must enter into “formal consultation” with the Service. 50 C.F.R. §§ 402.12(k), 402.14(a). The threshold for triggering the formal consultation requirement is “very low”; indeed, “any possible effect ... triggers formal consultation requirements.”

Formal consultation commences with the action agency’s written request for consultation and concludes with the Service’s issuance of a “biological opinion.” 50 C.F.R. § 402.02. The biological opinion states the Service’s opinion as to whether the effects of the action are “likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.” *Id.* § 402.14(g)(4). When conducting formal consultation, the Service and the action agency must evaluate the “effects of the action,” including all direct and indirect effects of the proposed action, plus the effects of actions that are interrelated or interdependent, added to all existing environmental conditions – that is, the “environmental baseline.” *Id.* §§ 402.14 and 402.02. The environmental baseline includes the past and present impacts of all Federal, state, and private actions and other human activities in the action area....” *Id.* The effects of the action must be considered together with “cumulative effects,” which are “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.” *Id.*

If the Service concludes in a biological opinion that jeopardy is likely to occur, it must prescribe “reasonable and prudent alternatives” to avoid jeopardy. *Id.* § 402.14(h)(3). If the Service concludes that a project is not likely to jeopardize listed species, it must nevertheless provide an incidental take statement (ITS) with the biological opinion, specifying the amount or extent of take that is incidental to the action (but which would otherwise be prohibited under Section 9 of the ESA), “reasonable and prudent measures” (RPMs) necessary or appropriate to minimize such take, and the “terms and conditions” that must be complied with by the action agency to implement any reasonable and prudent measures. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

The ESA requires federal agencies to use the best scientific and commercial data available when consulting about whether federal actions will jeopardize listed species. *See* 16 U.S.C. § 1536(a)(2). Accordingly, an action agency must “provide the Service with the best scientific and commercial data available or which can be obtained during the consultation for an

adequate review of the effects that an action may have upon listed species of critical habitat.” 50 C.F.R. § 402.14(d). Likewise, “[i]n formulating its biological opinion...the Service will use the best scientific and commercial data available.” *Id.* § 402.14(g)(8). However, if the action agency failed “to discuss information that would undercut the opinion’s conclusions,” the biological opinion is legally flawed, and the ITS will not insulate the agency from ESA Section 9 liability. *See Ctr. for Biological Diversity v. BLM*, 698 F.3d 1101, 1127-28 (9th Cir. 2012).

Section 7(d) of the ESA provides that once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, “shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.” 16 U.S.C. § 1536(d). The purpose of section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its obligations under section 7(a)(2) that the action will not result in jeopardy to listed species or adverse modification of critical habitat.

Here, BLM must undertake Section 7 consultation in connection with proposed actions that “may affect” listed species and habitat needed to maintain or recover the species. BLM should consider the effects of all stages of well development, including land clearing, construction, drilling, fracking, production, and reclamation. BLM must also consider the effects of indirect and cumulative greenhouse gas emissions associated with oil and gas drilling locally, regionally, and nationally. Because fossil fuel extraction from public lands and waters represents 25% of all U.S. emissions, and therefore represent a globally significant percentage of all emissions, the impacts to climate-threatened listed species and their habitats is appreciable, significant, and must be assessed under the ESA’s consultation framework. Consultation must address two critical types of harms that occur to listed species: (1) landscape level impacts that occur to listed species that are found within the action area of the existing footprint of possible and existing fossil fuel leasing and (2) geographically remote impacts to listed species from climate change exacerbated by the cumulative emissions of the proposed drilling and federal fossil fuel programs. Meaningful analysis of these impacts would be consistent with President Biden’s Executive Order 13990, which states that all federal agencies “must be guided by the best science and be protected by processes that ensure the integrity of Federal decision-making.”

The Center requests to be notified of all future public comment opportunities related to these APDs, the availability of any NEPA analysis BLM undertakes in relationship to them, and BLM’s decision on them, per 40 CFR 1506.6. Please use APD@biologicaldiversity.org to contact the Center in all future correspondence relating to these permits to drill and their respective NEPA processes.

Sincerely,

A handwritten signature in black ink, appearing to read 'Taylor McKinnon', written in a cursive style.

Taylor McKinnon
Center for Biological Diversity
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APD@biologicaldiversity.org