

# Conversation Contents

comments on 3349

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**"Kelleher, Karen" <kkelleh@blm.gov>**

---

**From:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Sent:** Thu Apr 13 2017 09:08:49 GMT-0600 (MDT)  
**To:** Leah Baker <lbaker@blm.gov>, "Bernier, Heather" <hbernier@blm.gov>, "Mead, Deborah" <dmead@blm.gov>, Kit Muller <kmuller@blm.gov>, Steve Tryon <stryon@blm.gov>  
**Subject:** comments on 3349

Hi,  
we just received comments on 3349. They are in hardcopy so I am transcribing them into the document so I can share them with you. Please plan to free up some of your afternoon to respond to these comments today.

early alert things to start working on:

Deblyn/Kit -

(b) (5)

Leah/Heather

(b) (5)

I will send the memo with all comments as soon as I can.

Karen

--

Karen Kelleher

Deputy Assistant Director - Resources and Planning

Main Interior room 5644

[kkelleh@blm.gov](mailto:kkelleh@blm.gov)

202-208-4896

**Deborah Mead <dmead@blm.gov>**

---

**From:** Deborah Mead <dmead@blm.gov>  
**Sent:** Thu Apr 13 2017 09:22:12 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <kkelleh@blm.gov>  
Leah Baker <lbaker@blm.gov>, "Bernier, Heather"  
**CC:** <hbernier@blm.gov>, Kit Muller <kmuller@blm.gov>, Steve Tryon  
<stryon@blm.gov>  
**Subject:** Re: comments on 3349

Ok.

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On Apr 13, 2017, at 11:09 AM, Kelleher, Karen <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)> wrote:

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[kkelleh@blm.gov](mailto:kkelleh@blm.gov)

**"Kelleher, Karen" <kkelleh@blm.gov>**

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**From:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Sent:** Thu Apr 13 2017 10:04:43 GMT-0600 (MDT)  
**To:** Deborah Mead <dmead@blm.gov>, "Bernier, Heather" <hbernier@blm.gov>, Leah Baker <lbaker@blm.gov>, Kit Muller <kmuller@blm.gov>, Robin Hawks <rhawks@blm.gov>, Hal Hallett <hhallett@blm.gov>  
**CC:** Steve Tryon <stryon@blm.gov>  
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**From:** "Kelleher, Karen" <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>  
**Sent:** Thu Apr 13 2017 10:16:42 GMT-0600 (MDT)  
**To:** Thomas Bartholomew <[tbarthol@blm.gov](mailto:tbarthol@blm.gov)>  
**Subject:** Fwd: comments on 3349  
**Attachments:** Memo to ASLM on SO3349\_draft\_041017\_SOL edits  
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----- Forwarded message -----

From: **Kelleher, Karen** <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>

Date: Thu, Apr 13, 2017 at 12:04 PM

Subject: Re: comments on 3349

To: Deborah Mead <[dmead@blm.gov](mailto:dmead@blm.gov)>, "Bernier, Heather" <[hbernier@blm.gov](mailto:hbernier@blm.gov)>, Leah Baker <[lbaker@blm.gov](mailto:lbaker@blm.gov)>, Kit Muller <[kmuller@blm.gov](mailto:kmuller@blm.gov)>, Robin Hawks <[rhawks@blm.gov](mailto:rhawks@blm.gov)>, Hal Hallett <[hhallett@blm.gov](mailto:hhallett@blm.gov)>

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**Robin Hawks <[rhawks@blm.gov](mailto:rhawks@blm.gov)>**

**From:** Robin Hawks <[rhawks@blm.gov](mailto:rhawks@blm.gov)>  
**Sent:** Thu Apr 13 2017 10:24:56 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>  
**Subject:** Re: comments on 3349

Karen, Will check. Robin

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**Leah Baker <lbaker@blm.gov>**

**From:** Leah Baker <lbaker@blm.gov>  
**Sent:** Thu Apr 13 2017 10:31:03 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <kkelleh@blm.gov>  
Deborah Mead <dmead@blm.gov>, "Bernier, Heather"

**CC:** <hbernier@blm.gov>, Kit Muller <kmuller@blm.gov>, Robin Hawks <rhawks@blm.gov>, Hal Hallett <hhallett@blm.gov>, Steve Tryon <stryon@blm.gov>  
**Subject:** Re: comments on 3349

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**Kit Muller <[kmuller@blm.gov](mailto:kmuller@blm.gov)>**

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**From:** Kit Muller <[kmuller@blm.gov](mailto:kmuller@blm.gov)>  
**Sent:** Thu Apr 13 2017 11:56:45 GMT-0600 (MDT)  
**To:** Leah Baker <[lbaker@blm.gov](mailto:lbaker@blm.gov)>  
**CC:** "Kelleher, Karen" <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>, Deborah Mead <[dmead@blm.gov](mailto:dmead@blm.gov)>, "Bernier, Heather" <[hbernier@blm.gov](mailto:hbernier@blm.gov)>, Robin Hawks <[rhawks@blm.gov](mailto:rhawks@blm.gov)>, Hal Hallett <[hhallett@blm.gov](mailto:hhallett@blm.gov)>, Steve Tryon <[stryon@blm.gov](mailto:stryon@blm.gov)>  
**Subject:** Re: comments on 3349

(b) (5)



While I think that Byron is out, the cultural folks should be able to provide more detail about the Programmatic Agreement.

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**From:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Sent:** Thu Apr 13 2017 11:57:57 GMT-0600 (MDT)  
**To:** Thomas Bartholomew <tbarthol@blm.gov>  
**Subject:** Fwd: comments on 3349

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From: **Kit Muller** <[kmuller@blm.gov](mailto:kmuller@blm.gov)>  
Date: Thu, Apr 13, 2017 at 1:56 PM  
Subject: Re: comments on 3349  
To: Leah Baker <[lbaker@blm.gov](mailto:lbaker@blm.gov)>  
Cc: "Kelleher, Karen" <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>, Deborah Mead <[dmead@blm.gov](mailto:dmead@blm.gov)>, "Bernier, Heather" <[hbernier@blm.gov](mailto:hbernier@blm.gov)>, Robin Hawks <[rhawks@blm.gov](mailto:rhawks@blm.gov)>, Hal Hallett <[hhallett@blm.gov](mailto:hhallett@blm.gov)>, Steve Tryon <[stryon@blm.gov](mailto:stryon@blm.gov)>

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**"Bartholomew, Thomas" <tbarthol@blm.gov>**

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**From:** "Bartholomew, Thomas" <tbarthol@blm.gov>  
**Sent:** Thu Apr 13 2017 12:03:15 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Subject:** Re: comments on 3349

This is the Permian Basin Agreement

<http://www.achp.gov/docs/new-mexico-permian.pdf>

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Thomas Bartholomew  
Resource Advisor - WO200  
Bureau of Land Management  
Resources and Planning Directorate  
Washington, DC  
202-208-5922

**"Hawks, Robin" <rhawks@blm.gov>**

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**From:** "Hawks, Robin" <rhawks@blm.gov>  
**Sent:** Thu Apr 13 2017 12:36:58 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <kkelleh@blm.gov>  
**CC:** Deborah Mead <dmead@blm.gov>, "Bernier, Heather" <hbernier@blm.gov>, Leah Baker <lbaker@blm.gov>, Kit Muller <kmuller@blm.gov>, Hal Hallett <hhallett@blm.gov>, Steve Tryon <stryon@blm.gov>, Maria Ulloa Bustos <mulloabustos@blm.gov>  
**Subject:** Re: comments on 3349

Karen,

(b) (5)

The definition of mitigation is at 1508.20.

Robin

Robin D. Hawks, Ph.D.  
Acting Division Chief  
Fish and Wildlife Conservation  
Bureau of Land Management  
Desk Phone: 202-912-7366  
Cell Phone: 202-713-8141  
[rhawks@blm.gov](mailto:rhawks@blm.gov)

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**"Kelleher, Karen" <kkelleh@blm.gov>**

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**From:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Sent:** Thu Apr 13 2017 12:48:24 GMT-0600 (MDT)  
**To:** Leah Baker <lbaker@blm.gov>  
**CC:** Deborah Mead <dmead@blm.gov>, "Bernier, Heather" <hbernier@blm.gov>, Kit Muller <kmuller@blm.gov>, Robin Hawks <rhawks@blm.gov>, Hal Hallett <hhallett@blm.gov>, Steve Tryon <stryon@blm.gov>  
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thanks. I need whatever you can get me by 4pm - we have to deliver to ASLM by 5 and on to the Sec to 6.  
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<Memo to ASLM on SO3349\_draft\_041017\_SOL edits RTC\_KMG.docx>

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Karen Kelleher

Deputy Assistant Director - Resources and Planning

Main Interior room 5644

[kkelleh@blm.gov](mailto:kkelleh@blm.gov)

202-208-4896

---

**"Bartholomew, Thomas" <tbarthol@blm.gov>**

**From:** "Bartholomew, Thomas" <tbarthol@blm.gov>

**Sent:** Thu Apr 13 2017 13:05:17 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Subject:** Re: comments on 3349  
**Attachments:** Memo to ASLM on SO3349\_draft\_041017\_SOL edits  
RTC\_KMG.docx

Hi Karen,

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On Thu, Apr 13, 2017 at 2:03 PM, Bartholomew, Thomas <[tbarthol@blm.gov](mailto:tbarthol@blm.gov)> wrote:  
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<http://www.achp.gov/docs/new-mexico-permian.pdf>

On Thu, Apr 13, 2017 at 1:57 PM, Kelleher, Karen <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)> wrote:

----- Forwarded message -----

From: **Kit Muller** <[kmuller@blm.gov](mailto:kmuller@blm.gov)>

Date: Thu, Apr 13, 2017 at 1:56 PM

Subject: Re: comments on 3349

To: Leah Baker <[lbaker@blm.gov](mailto:lbaker@blm.gov)>

Cc: "Kelleher, Karen" <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>, Deborah Mead <[dmead@blm.gov](mailto:dmead@blm.gov)>, "Bernier, Heather" <[hbernier@blm.gov](mailto:hbernier@blm.gov)>, Robin Hawks <[rhawks@blm.gov](mailto:rhawks@blm.gov)>, Hal Hallett <[hhallett@blm.gov](mailto:hhallett@blm.gov)>, Steve Tryon <[stryon@blm.gov](mailto:stryon@blm.gov)>

(b) (5)



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Sent from my iPhone

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Robin/Hal - please see comment (b) (5)



leah/heather - please look in the (b) (5)

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Deblyn/Kit -

(b) (5)

Leah/Heather

(b) (5)

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Karen

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Thomas Bartholomew  
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Resources and Planning Directorate  
Washington, DC  
202-208-5922

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Thomas Bartholomew  
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Bureau of Land Management  
Resources and Planning Directorate  
Washington, DC  
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**"Kelleher, Karen" <kkelleh@blm.gov>**

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**From:** "Kelleher, Karen" <kkelleh@blm.gov>

**Sent:** Thu Apr 13 2017 13:21:47 GMT-0600 (MDT)

**To:** "Bartholomew, Thomas" <tbarthol@blm.gov>  
**Subject:** Re: comments on 3349

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To: Leah Baker <lbaker@blm.gov>

Cc: "Kelleher, Karen" <kkelleh@blm.gov>, Deborah Mead <dmead@blm.gov>, "Bernier, Heather" <hbernier@blm.gov>, Robin Hawks <rhawks@blm.gov>, Hal Hallett <hhallett@blm.gov>, Steve Tryon <stryon@blm.gov>

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Karen Kelleher

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[kkelleh@blm.gov](mailto:kkelleh@blm.gov)

202-208-4896

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Main Interior room 5644

[kkelleh@blm.gov](mailto:kkelleh@blm.gov)

202-208-4896

**"Mead, Deborah" <dmead@blm.gov>**

---

**From:** "Mead, Deborah" <dmead@blm.gov>  
**Sent:** Thu Apr 13 2017 13:37:54 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <kkelleh@blm.gov>, "Bartholomew, Thomas" <tbarthol@blm.gov>  
**CC:** "Bernier, Heather" <hbernier@blm.gov>, Leah Baker <lbaker@blm.gov>, Kit Muller <kmuller@blm.gov>, Robin Hawks <rhawks@blm.gov>, Hal Hallett <hhallett@blm.gov>, Steve Tryon <stryon@blm.gov>  
**Subject:** Re: comments on 3349

(b) (5)



---

Deborah (Deblyn) Mead  
National Mitigation Coordinator  
Bureau of Land Management  
20 M Street  
Washington, DC 20003  
Phone: 202.912.7542  
Mobile: 202.494.7865  
Email: [dmead@blm.gov](mailto:dmead@blm.gov)

On Thu, Apr 13, 2017 at 12:04 PM, Kelleher, Karen <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)> wrote:  
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**From:** "Bartholomew, Thomas" <[tbarthol@blm.gov](mailto:tbarthol@blm.gov)>  
**Sent:** Thu Apr 13 2017 13:40:11 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>  
**Subject:** Re: comments on 3349  
**Attachments:** Grazing Language from PL 112-74.docx

Ok, I think this is all of the right language, but would be good to have someone in legislative affairs verify it.

On Thu, Apr 13, 2017 at 3:21 PM, Kelleher, Karen <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)> wrote:  
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Karen Kelleher

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Main Interior room 5644

[kkelleh@blm.gov](mailto:kkelleh@blm.gov)

202-208-4896

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202-208-4896

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Thomas Bartholomew  
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Resource Advisor - WO200  
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Washington, DC  
202-208-5922

**"Baker, Leah" <lbaker@blm.gov>**

---

**From:** "Baker, Leah" <lbaker@blm.gov>  
**Sent:** Thu Apr 13 2017 14:47:14 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <kkelleh@blm.gov>  
"Bernier, Heather" <hbernier@blm.gov>, "Mead, Deborah"  
**CC:** <dmead@blm.gov>, Kit Muller <kmuller@blm.gov>, Steve Tryon  
<stryon@blm.gov>  
**Subject:** Re: comments on 3349

**Attachments:**

Memo to ASLM on SO3349\_draft\_041017\_SOL edits  
RTC\_KMG\_WO210.docx

Hi Karen,

Please see WO-210's edits, embedded in the attached. They include:

(b) (5)

On Thu, Apr 13, 2017 at 11:08 AM, Kelleher, Karen <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)> wrote:

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202-208-4896

--

Leah Baker  
Division Chief | Decision Support, Planning & NEPA  
BLM | Washington Office  
202.912.7282 (o) | 202.495.9922 (c)

---

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**From:** "Baker, Leah" <[lbaker@blm.gov](mailto:lbaker@blm.gov)>  
**Sent:** Thu Apr 13 2017 14:55:40 GMT-0600 (MDT)  
**To:** "Kelleher, Karen" <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)>

**CC:** "Bernier, Heather" <hbernier@blm.gov>, "Mead, Deborah" <dmead@blm.gov>, Kit Muller <kmuller@blm.gov>, Steve Tryon <stryon@blm.gov>  
**Subject:** Re: comments on 3349  
**Attachments:** Memo to ASLM on SO3349\_draft\_04142017\_WO210 Edits.docx

And with the correct attachment

On Thu, Apr 13, 2017 at 4:48 PM, Baker, Leah <[lbaker@blm.gov](mailto:lbaker@blm.gov)> wrote:  
WRONG Attachment StandBY

On Thu, Apr 13, 2017 at 4:47 PM, Baker, Leah <[lbaker@blm.gov](mailto:lbaker@blm.gov)> wrote:  
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Leah Baker  
Division Chief | Decision Support, Planning & NEPA  
BLM | Washington Office

| 202.912.7282 (o) | 202.495.9922 (c)

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Leah Baker  
Division Chief | Decision Support, Planning & NEPA  
BLM | Washington Office  
202.912.7282 (o) | 202.495.9922 (c)

INFORMATION/BRIEFING MEMORANDUM FOR THE SECRETARY

(b) (5)

DATE: April 12, 2017

THROUGH: Katharine MacGregor, Acting Assistant Secretary – Land and Minerals [Management](#)

FROM: Michael D. Nedd, Acting Director – Bureau of Land Management

SUBJECT: Implementation of Secretary’s Order 3349, Section 5-(a) and (b)

This memorandum responds to questions posed in sections 5(a)(i) and 5(b)(i) of Secretary’s Order (SO) 3349, “American Energy Independence,” which requests summary information about “actions” the Bureau of Land Management (BLM) has adopted or is in the processes of developing with respect to certain memoranda and orders related to mitigation and climate change. The BLM has interpreted “actions,” as described in SO 3349, to include: (1) new regulations or amendments to existing regulations; (2) new or revised BLM Manual Sections; (3) new or revised handbooks; (4) Instruction Memoranda (IM); (5) Information Bulletins (IB); and (6) other policy and guidance documents that include direction on mitigation and climate change.

**BACKGROUND ON MITIGATION**

For decades, the BLM has been using mitigation to reduce the severity or seriousness of impacts to resources and land uses across the landscape for decades. As required under the National Environmental Policy Act (NEPA), the BLM routinely evaluates mitigation measures in its Environmental Impact Statements and Environment Assessments for land use plans and project authorizations. When BLM implements mitigation, it seeks to avoid impacts, minimize impacts, and compensate for residual impacts to sensitive, scarce, or important resources consistent with the definition of mitigation in the Council on Environmental Quality (CEQ) regulations (40 C.F.R. § 1508.20). Avoidance and minimization have been and continue to be the most commonly used mitigation when BLM is authorizing an action. Although it was applied inconsistently prior to issuance of the first policy on the topic in 2005, BLM has also used compensatory mitigation, particularly to reduce residual impacts to threatened and endangered species, cultural resources, air, and water.

(b) (5)

Mitigation measures are often incorporated into lease stipulations, permit conditions of approval,

(b) (5)

best management practices, or reclamation measures; avoidance and minimization measures are also commonly built into the proposed action as design features to avoid known sensitive resources. Mitigation, including compensation, is a particularly useful tool for the BLM because it can help to facilitate compliance with a variety of applicable laws where an action might not otherwise comply.<sup>2</sup> The Permian Basin Agreement is an example of a voluntary program in which a company may choose to contribute the cost of the required archaeological survey (required under Section 106 of the NHPA), into a mitigation pool. The pooled fund allows for effective management of the area's archaeological resources and provides industry more predictability and control over schedules and budgets needed to operate efficiently.

(b) (5)

[Redacted]

In addition to aiding compliance with various laws and regulations, use of mitigation in appropriate circumstances may also increase the defensibility of BLM's decisions. For example, in 2008, when BLM authorized natural gas development in the Pinedale Anticline in western Wyoming, that Record of Decision was challenged on the grounds that it violated FLPMA's direction to prevent unnecessary or undue degradation of the public lands. The D.C. Circuit Court of Appeals, however, found that BLM's authorization complied with FLPMA, citing BLM's reliance on mitigation measures to reduce project impacts (Theodore Roosevelt Conservation Partnership v. Salazar, 661 F.3d 66, 76-77 (D.C. Cir. 2011)).

BLM began working on formal mitigation policy in the early 2000s to provide clarity and guidance for the field and increase consistency in the implementation of mitigation, in particular, identifying, considering, and, as appropriate, requiring, mitigation to address impacts to sensitive, important, or rare resources from public land uses. BLM has also focused on proactive and regional approaches that consider mitigation in the planning process, as well as to and encourages the use of mitigation banks, exchanges and similar mechanisms. This approach has provided more certainty to applicants on the types of mitigation likely to be considered for a project and has helped to streamline the permitting process.

[Redacted]

### **RECENT BLM MITIGATION ACTIONS**

The BLM has adopted or is in the process of developing the following actions relating to (1) Secretary's Order 3330, dated October 31, 2013, "Improving Mitigation Policies and Practices of the Department of the Interior;" and the associated report dated April 2014, "A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior;" and (2) the Presidential Memorandum dated November 3, 2015, "Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment."

<sup>2</sup> Mitigation can play an important role under the Clean Water Act, for example, when restoration can help achieve the no net loss of wetlands standard; under the Clean Air Act, to comply with Implementation Plans for non-attainment areas or to prevent/reduce air quality degradation; under the Endangered Species Act, as incorporated in reasonable and prudent alternatives to avoid jeopardizing the continued existence of a listed species under section 7 or as a component of a Habitat Conservation Plan under section 10; under the National Historic Preservation Act, since BLM must consult with states, tribes, and other parties to seek to resolve an undertaking's adverse impacts on historic properties, and seek to minimize harm on National Historic Landmarks; and under the Federal Land Policy and Management Act (FLPMA), to prevent unnecessary or undue degradation of public lands.

1. **BLM IB No. 2017-015, Availability of Model Compensatory Mitigation MOU** (December 2016). The IB announces the availability of a model memorandum of understanding (MOU) for use by the BLM State Offices when collaborating with state governments regarding state-based compensatory mitigation programs for the Greater Sage-Grouse and its habitat. This model provides language that makes the strongest commitment the BLM can make within our legal constraints to coordinate our project review processes with the states' compensatory mitigation programs. The model MOU can be adapted for other resources and circumstances where state compensatory mitigation programs may assist the BLM in achieving its mission. To date, BLM has developed MOUs supporting the use of state-based tools for sage-grouse mitigation with the states of Nevada, Wyoming, and Colorado, and is in discussions with the states of Oregon, Idaho, California, Montana, and Utah.
2. **BLM Mitigation Manual, MS-1794** (December 2016). This manual section and the Mitigation Handbook, H-1794-1 (listed below), were issued under **BLM IM No. 2017-021**. This policy includes principles for mitigation that, "effective mitigation is durable, defined by outcomes, implemented and monitored for effectiveness, considered within an adaptive management framework, reported upon, managed by a responsible party, guided by the best available science, and developed through effective, early, and frequent communication with public land users, cooperating agencies, and other stakeholders, including the public."
3. **BLM Mitigation Handbook, H-1794-1** (December 2016). Description included above under MS-1794.
4. **BLM New Mexico IM No. NM-F010-2016-004, Bureau of Land Management (BLM) Sensitive Species – Brack's Cactus Management** (September 7, 2016). This IM is specific to the Farmington District and provides guidance to conserve habitat and protect Brack's cactus, a BLM Sensitive Species and a species included on the State of New Mexico's list of endangered plant species, from ground-disturbing projects by (1) requiring surveys to identify Brack's cactus locations; and (2) implementing management guidance to mitigate impacts to Brack's cactus by avoiding and minimizing impacts, and then compensating for impacts that cannot be avoided.
5. **BLM California IM No. CA-2015-009, Renewal of IM Implementing Provisions within the Consolidated Appropriations Act, 2012 (Public Law 112-74) Related to Livestock Grazing Authorizations in the California Desert Conservation Area** (December 17, 2014). This IM reiterates and provides direction on implementing the livestock grazing provisions in P.L. 112-74, which states that BLM shall accept the donation of valid existing grazing allotments and make the land available for mitigation by allocating the forage to wildlife use consistent with any applicable Habitat Conservation Plan, Endangered Species Act section 10 permit, or biological opinion.
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#### **BACKGROUND ON CLIMATE CHANGE**

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1. **BLM Permanent IM No. 2017-003, The Council on Environmental Quality Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews** (December 2016). The IM transmits CEQ guidance on considering climate change in NEPA analysis. It also provides specific step-down guidance for how to calculate the “downstream” or indirect greenhouse gas emissions associated with fossil fuel actions (coal, oil, and gas), when

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production estimates are reasonably foreseeable.

2. **BLM IM, Considering Climate Change in NEPA Documents** (never issued). This draft policy was intended to provide BLM-specific step-down guidance based on CEQ guidance and Department of the Interior Office of Environmental Policy and Compliance (OEPC) guidance on considering climate change in NEPA analysis. Topics included land use and carbon sequestration, biogenic emissions associated with prescribed- and wild-fire, and the social cost of carbon.

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### PREVIOUS BLM CLIMATE CHANGE ACTIONS

Prior to issuance of the documents listed in SO 3349, the BLM took the following actions of note related to climate change:

1. **BLM New Mexico IM No. NM-2013-022, Availability of Updated Air Resources Technical Report (ARTR); Use of Environmental Assessment (EA) Template Air Quality and Climate Change Language for Applications for Permit to Drill (APDs) and Lease Sales** (June 2013). This IM instructed District and Field Offices to use the latest version of the BLM New Mexico Air Resources Technical Report, and provided template language for use in NEPA environmental analysis documents, to address air quality and climate change impacts.
2. **BLM Oregon/Washington IM No. OR-2010-012, Analysis of Greenhouse Gas Emissions and Consideration of Climate Change in National Environmental Policy Act Documents** (January 2010). This IM provided guidance on analyzing greenhouse gas emissions and addressing changing climate conditions in NEPA documents. The IM expired in October 2011.
3. **BLM IM No. 2008-171, Guidance on Incorporating Climate Change into Planning and NEPA Documents** (August 2008). This IM transmitted draft guidance on incorporating climate change considerations into the Land Use Planning/NEPA analysis process, and requested feedback from the BLM states on their experience with incorporating climate change into NEPA documents.

BLM has also developed tools [and a report](#) to assist in assessing emissions, including the following:

1. **Tool: BLM Emissions Inventory Toolkit.** The BLM Washington Office is developing an Emissions Inventory Toolkit, scheduled for completion in September 2017, which would consolidate and enhance existing emissions inventory tools [that have been developed in recent years to address requirements from the Clean Air Act](#). The Emissions Inventory Toolkit would be a web-based application for calculating emissions from criteria pollutants, hazardous air pollutants and greenhouse gases. It would store emissions inventories from various projects to assess cumulative emissions, and would include a modeling component for near-field impacts analysis. The toolkit would include a library to store documents and reports. [The toolkit, and](#) would be useful in streamlining air analyses for NEPA and General Conformity requirements and showing whether air quality standards or management goals would be met.

2. **Tool: BLM Colorado Emissions Inventory Calculator.** The BLM\_Colorado emissions calculator estimates air resources emissions, including greenhouse gases, with the goal of providing technical consistency and efficiency in gathering data on emissions-generating activities for use in NEPA analyses. The ability of the tool to gather information from external sources to be compiled for analysis has led to faster processing times for projects requiring air analysis. This tool would be consolidated into the BLM Emissions Inventory Toolkit mentioned above.
3. **Tool: BLM Oregon/Washington carbon calculators.** Four of the BLM western Oregon Districts have developed carbon storage and greenhouse gas calculators to support environmental analyses, primarily timber sales. Key features of these tools would be consolidated into the BLM Emissions Inventory Toolkit mentioned above.
4. **Tool: BLM New Mexico emissions calculators.** In ~~BLM~~-New Mexico, [the BLM has](#) three calculators ~~are~~-available to estimate air resources emissions, including greenhouse gases, for use in NEPA environmental analysis documents associated with applications for permit to drill and oil and gas lease sales. Key features of these tools would be consolidated into the BLM Emissions Inventory Toolkit mentioned above.
5. **Report: Greenhouse Gas & Climate Change Report.** The Greenhouse Gas and Climate Change Report provides a database and air emissions tool to calculate greenhouse gas emissions for the base year database and the out-year projections for 10 western states. The report includes emissions associated with production and consumption activities, separated by Federal and non-Federal lands for coal, oil, natural gas, and natural gas liquids, for incorporation by reference into NEPA analyses. The reports would be housed in the library section of the BLM Emissions Inventory Toolkit mentioned above.

In addition to the policies and tools listed above, the BLM has taken a wide variety of actions over the years to assess and address the risks associated with wildland fire, invasive plants and animals, drought and other environmental changes that may be caused, in part, by climate change. Examples of such adaptation actions include [the following](#):- helping develop and implement the National Cohesive Wildland Fire Management Strategy;- participating in the work of the National Invasive Species Council;- working with the State of Montana and the National Drought Resilience Partnership to build drought resilience in the Upper Missouri River Basin;- synthesizing and considering ecoregional information related to impacts of climate change on [the](#) resources BLM manages in land use planning;- and partnering with individual livestock permittees to adapt their operations to be more resilient to wildland fire and drought.

#### NEXT STEPS

In responding to SO 3349, the BLM has focused primarily on policies that have been adopted since the date of the documents specified in the Order. [However, we have included early policies to provide a clear history of the evolution of these policies over time.](#) The BLM has applied mitigation and considered climate change in its decision-making and use authorizations for years, encompassing thousands of individual actions and decisions. As noted previously, several laws, such as the National Historic Preservation Act and the National Environmental Policy Act, require the BLM to consider mitigation [and/or climate change](#) in its decision-making processes.

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Courts have also weighed in on the need for the BLM to consider both mitigation and climate change, including greenhouse gas emissions. (b) (5) The BLM recommends considering modification of the BLM's mitigation and green-house gasse policies, rather than complete rescission.

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When the Deputy Secretary informs the Assistant Secretary for Land and Minerals, in accordance with Section 5(a)(ii) of the SO 3349, about how to proceed in modifying the BLM's mitigation policy, the BLM requests that clarification be provided on what elements of the "mitigation hierarchy" (which variously encompasses avoid, minimize, rectify (repair, rehabilitate, restore), reduce, eliminate, compensate) should be reconsidered. The BLM also requests clarification on whether specific past decisions should be reconsidered. In general, BLM believes the primary mitigation-related issues of concern relate to compensation. Therefore, the BLM recommends that reconsideration of its mitigation policies focus on its approach to compensation in ongoing or future land use plans and projects, such as which resources should be compensated for and what standard(s) should be applied when compensatory mitigation is appropriate (e.g., no net loss, net conservation gain).

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When the Deputy Secretary informs the Assistant Secretary for Land and Minerals, in accordance with Section 5(b)(ii) of the SO 3349, about how to proceed in modifying the BLM's climate change policy, the BLM requests that clarification be provided on whether reconsideration should focus on analyzing the impacts of BLM's land use authorizations on climate change (e.g., greenhouse gases) or should also include reconsideration of BLM's adaptation actions (e.g., drought, invasive species, fire and other changes that may be related to climate change). In general, BLM believes there is broad public support for BLM's adaptation-related actions and recommends that reconsideration focus on policy related to greenhouse gases, such as evaluation of downstream effects.

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Based on feedback from the Deputy Secretary to the Assistant Secretary, the BLM will, in accordance with Section 5(a)(iii) and 5(b)(iii), determine which mitigation or climate policies cause an unnecessary burden to domestic energy development and provide a draft revised or substitute action for review.

INFORMATION/BRIEFING MEMORANDUM FOR THE SECRETARY

(b) (5)

DATE: April 12, 2017

THROUGH: Katharine MacGregor, Acting Assistant Secretary –  
Land and Minerals [Management](#)

FROM: Michael D. Nedd, Acting Director – Bureau of Land Management

SUBJECT: Implementation of Secretary’s Order 3349, Section 5-(a) and (b)

This memorandum responds to questions posed in sections 5(a)(i) and 5(b)(i) of Secretary’s Order (SO) 3349, “American Energy Independence,” which requests summary information about “actions” the Bureau of Land Management (BLM) has adopted or is in the processes of developing with respect to certain memoranda and orders related to mitigation and climate change. The BLM has interpreted “actions,” as described in SO 3349, to include: (1) new regulations or amendments to existing regulations; (2) new or revised BLM Manual Sections; (3) new or revised handbooks; (4) Instruction Memoranda (IM); (5) Information Bulletins (IB); and (6) other policy and guidance documents that include direction on mitigation and climate change.

**BACKGROUND ON MITIGATION**

For decades, the BLM has been using mitigation to reduce the severity or seriousness of impacts to resources and land uses across the landscape for decades. As required under the National Environmental Policy Act (NEPA), the BLM routinely evaluates mitigation measures in its Environmental Impact Statements and Environment Assessments for land use plans and project authorizations. When BLM implements mitigation, it seeks to avoid impacts, minimize impacts, and compensate for residual impacts to sensitive, scarce, or important resources consistent with the definition of mitigation in the Council on Environmental Quality (CEQ) regulations (40 C.F.R. § 1508.20). Avoidance and minimization have been and continue to be the most commonly used mitigation when BLM is authorizing an action. Although it was applied inconsistently prior to issuance of the first policy on the topic in 2005, BLM has also used compensatory mitigation, particularly to reduce residual impacts to threatened and endangered species, cultural resources, air, and water.

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Mitigation measures are often incorporated into lease stipulations, permit conditions of approval,

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best management practices, or reclamation measures; avoidance and minimization measures are also commonly built into the proposed action as design features to avoid known sensitive resources. Mitigation, including compensation, is a particularly useful tool for the BLM because it can help to facilitate compliance with a variety of applicable laws where an action might not otherwise comply.<sup>2</sup> The Permian Basin Agreement is an example of a voluntary program in which a company may choose to contribute the cost of the required archaeological survey (required under Section 106 of the NHPA), into a mitigation pool. The pooled fund allows for effective management of the area's archaeological resources and provides industry more predictability and control over schedules and budgets needed to operate efficiently.

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In addition to aiding compliance with various laws and regulations, use of mitigation in appropriate circumstances may also increase the defensibility of BLM's decisions. For example, in 2008, when BLM authorized natural gas development in the Pinedale Anticline in western Wyoming, that Record of Decision was challenged on the grounds that it violated FLPMA's direction to prevent unnecessary or undue degradation of the public lands. The D.C. Circuit Court of Appeals, however, found that BLM's authorization complied with FLPMA, citing BLM's reliance on mitigation measures to reduce project impacts (Theodore Roosevelt Conservation Partnership v. Salazar, 661 F.3d 66, 76-77 (D.C. Cir. 2011)).

BLM began working on formal mitigation policy in the early 2000s to provide clarity and guidance for the field and increase consistency in the implementation of mitigation, in particular, identifying, considering, and, as appropriate, requiring, mitigation to address impacts to sensitive, important, or rare resources from public land uses. BLM has also focused on proactive and regional approaches that consider mitigation in the planning process, as well as to and encourages the use of mitigation banks, exchanges and similar mechanisms. This approach has provided more certainty to applicants on the types of mitigation likely to be considered for a project and has helped to streamline the permitting process.

### **RECENT BLM MITIGATION ACTIONS**

The BLM has adopted or is in the process of developing the following actions relating to (1) Secretary's Order 3330, dated October 31, 2013, "Improving Mitigation Policies and Practices of the Department of the Interior;" and the associated report dated April 2014, "A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior;" and (2) the Presidential Memorandum dated November 3, 2015, "Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment."

<sup>2</sup> Mitigation can play an important role under the Clean Water Act, for example, when restoration can help achieve the no net loss of wetlands standard; under the Clean Air Act, to comply with Implementation Plans for non-attainment areas or to prevent/reduce air quality degradation; under the Endangered Species Act, as incorporated in reasonable and prudent alternatives to avoid jeopardizing the continued existence of a listed species under section 7 or as a component of a Habitat Conservation Plan under section 10; under the National Historic Preservation Act, since BLM must consult with states, tribes, and other parties to seek to resolve an undertaking's adverse impacts on historic properties, and seek to minimize harm on National Historic Landmarks; and under the Federal Land Policy and Management Act (FLPMA), to prevent unnecessary or undue degradation of public lands.

1. **BLM IB No. 2017-015, Availability of Model Compensatory Mitigation MOU** (December 2016). The ~~is~~ IB announces the availability of a model memorandum of understanding (MOU) for use by ~~the~~ BLM State Offices when collaborating with state governments regarding state-based compensatory mitigation programs for the Greater Sage-Grouse and its habitat. This model provides language that makes the strongest commitment the BLM can make within our legal constraints to coordinate our project review processes with the states' compensatory mitigation programs. The model MOU can be adapted for other resources and circumstances where state compensatory mitigation programs may assist the BLM in achieving its mission. To date, BLM has developed MOUs supporting the use of state-based tools for sage-grouse mitigation with the states of Nevada, Wyoming, and Colorado, and is in discussions with the states of Oregon, Idaho, California, Montana, and Utah.
2. **BLM Mitigation Manual, MS-1794** (December 2016). This manual section and the Mitigation Handbook, H-1794-1 (listed below), were issued under **BLM IM No. 2017-021**. This policy includes principles for mitigation that, "effective mitigation is durable, defined by outcomes, implemented and monitored for effectiveness, considered within an adaptive management framework, reported upon, managed by a responsible party, guided by the best available science, and developed through effective, early, and frequent communication with public land users, cooperating agencies, and other stakeholders, including the public."
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1. **BLM Permanent IM No. 2017-003, The Council on Environmental Quality Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews** (December 2016). The IM transmits CEQ guidance on considering climate change in NEPA analysis. It also provides specific step-down guidance for how to calculate the “downstream” or indirect greenhouse gas emissions associated with fossil fuel actions (coal, oil, and gas), when

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production estimates are reasonably foreseeable.

2. **BLM IM, Considering Climate Change in NEPA Documents** (never issued). This draft policy was intended to provide BLM-specific step-down guidance based on CEQ guidance and Department of the Interior Office of Environmental Policy and Compliance (OEPC) guidance on considering climate change in NEPA analysis. Topics included land use and carbon sequestration, biogenic emissions associated with prescribed- and wild-fire, and the social cost of carbon.

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### PREVIOUS BLM CLIMATE CHANGE ACTIONS

Prior to issuance of the documents listed in SO 3349, the BLM took the following actions of note related to climate change:

1. **BLM New Mexico IM No. NM-2013-022, Availability of Updated Air Resources Technical Report (ARTR); Use of Environmental Assessment (EA) Template Air Quality and Climate Change Language for Applications for Permit to Drill (APDs) and Lease Sales** (June 2013). This IM instructed District and Field Offices to use the latest version of the BLM New Mexico Air Resources Technical Report, and provided template language for use in NEPA environmental analysis documents, to address air quality and climate change impacts.
2. **BLM Oregon/Washington IM No. OR-2010-012, Analysis of Greenhouse Gas Emissions and Consideration of Climate Change in National Environmental Policy Act Documents** (January 2010). This IM provided guidance on analyzing greenhouse gas emissions and addressing changing climate conditions in NEPA documents. The IM expired in October 2011.
3. **BLM IM No. 2008-171, Guidance on Incorporating Climate Change into Planning and NEPA Documents** (August 2008). This IM transmitted draft guidance on incorporating climate change considerations into the Land Use Planning/NEPA analysis process, and requested feedback from the BLM states on their experience with incorporating climate change into NEPA documents.

BLM has also developed tools [and a report](#) to assist in assessing emissions, including the following:

1. **Tool: BLM Emissions Inventory Toolkit.** The BLM Washington Office is developing an Emissions Inventory Toolkit, scheduled for completion in September 2017, which would consolidate and enhance existing emissions inventory tools [that have been developed in recent years to address requirements from the Clean Air Act](#). The Emissions Inventory Toolkit would be a web-based application for calculating emissions from criteria pollutants, hazardous air pollutants and greenhouse gases. It would store emissions inventories from various projects to assess cumulative emissions, and would include a modeling component for near-field impacts analysis. The toolkit would include a library to store documents and reports. [The toolkit, and](#) would be useful in streamlining air analyses for NEPA and General Conformity requirements and showing whether air quality standards or management goals would be met.

2. **Tool: BLM Colorado Emissions Inventory Calculator.** The BLM\_Colorado emissions calculator estimates air resources emissions, including greenhouse gases, with the goal of providing technical consistency and efficiency in gathering data on emissions-generating activities for use in NEPA analyses. The ability of the tool to gather information from external sources to be compiled for analysis has led to faster processing times for projects requiring air analysis. This tool would be consolidated into the BLM Emissions Inventory Toolkit mentioned above.
3. **Tool: BLM Oregon/Washington carbon calculators.** Four of the BLM western Oregon Districts have developed carbon storage and greenhouse gas calculators to support environmental analyses, primarily timber sales. Key features of these tools would be consolidated into the BLM Emissions Inventory Toolkit mentioned above.
4. **Tool: BLM New Mexico emissions calculators.** In ~~BLM~~-New Mexico, [the BLM has](#) three calculators ~~are~~-available to estimate air resources emissions, including greenhouse gases, for use in NEPA environmental analysis documents associated with applications for permit to drill and oil and gas lease sales. Key features of these tools would be consolidated into the BLM Emissions Inventory Toolkit mentioned above.
5. **Report: Greenhouse Gas & Climate Change Report.** The Greenhouse Gas and Climate Change Report provides a database and air emissions tool to calculate greenhouse gas emissions for the base year database and the out-year projections for 10 western states. The report includes emissions associated with production and consumption activities, separated by Federal and non-Federal lands for coal, oil, natural gas, and natural gas liquids, for incorporation by reference into NEPA analyses. The reports would be housed in the library section of the BLM Emissions Inventory Toolkit mentioned above.

In addition to the policies and tools listed above, the BLM has taken a wide variety of actions over the years to assess and address the risks associated with wildland fire, invasive plants and animals, drought and other environmental changes that may be caused, in part, by climate change. Examples of such adaptation actions include [the following](#):- helping develop and implement the National Cohesive Wildland Fire Management Strategy;- participating in the work of the National Invasive Species Council;- working with the State of Montana and the National Drought Resilience Partnership to build drought resilience in the Upper Missouri River Basin;- synthesizing and considering ecoregional information related to impacts of climate change on [the](#) resources BLM manages in land use planning;- and partnering with individual livestock permittees to adapt their operations to be more resilient to wildland fire and drought.

#### NEXT STEPS

In responding to SO 3349, the BLM has focused primarily on policies that have been adopted since the date of the documents specified in the Order. [However, we have included early policies to provide a clear history of the evolution of these policies over time.](#) The BLM has applied mitigation and considered climate change in its decision-making and use authorizations for years, encompassing thousands of individual actions and decisions. As noted previously, several laws, such as the National Historic Preservation Act and the National Environmental Policy Act, require the BLM to consider mitigation [and/or climate change](#) in its decision-making processes.

(b) (5)

Courts have also weighed in on the need for the BLM to consider both mitigation and climate change, including greenhouse gas emissions. (b) (5) The BLM recommends considering modification of the BLM's mitigation and green-house gasse policies, rather than complete rescission.

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When the Deputy Secretary informs the Assistant Secretary for Land and Minerals, in accordance with Section 5(a)(ii) of the SO 3349, about how to proceed in modifying the BLM's mitigation policy, the BLM requests that clarification be provided on what elements of the "mitigation hierarchy" (which variously encompasses avoid, minimize, rectify (repair, rehabilitate, restore), reduce, eliminate, compensate) should be reconsidered. The BLM also requests clarification on whether specific past decisions should be reconsidered. In general, BLM believes the primary mitigation-related issues of concern relate to compensation. Therefore, the BLM recommends that reconsideration of its mitigation policies focus on its approach to compensation in ongoing or future land use plans and projects, such as which resources should be compensated for and what standard(s) should be applied when compensatory mitigation is appropriate (e.g., no net loss, net conservation gain).

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When the Deputy Secretary informs the Assistant Secretary for Land and Minerals, in accordance with Section 5(b)(ii) of the SO 3349, about how to proceed in modifying the BLM's climate change policy, the BLM requests that clarification be provided on whether reconsideration should focus on analyzing the impacts of BLM's land use authorizations on climate change (e.g., greenhouse gases) or should also include reconsideration of BLM's adaptation actions (e.g., drought, invasive species, fire and other changes that may be related to climate change). In general, BLM believes there is broad public support for BLM's adaptation-related actions and recommends that reconsideration focus on policy related to greenhouse gases, such as evaluation of downstream effects.

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Based on feedback from the Deputy Secretary to the Assistant Secretary, the BLM will, in accordance with Section 5(a)(iii) and 5(b)(iii), determine which mitigation or climate policies cause an unnecessary burden to domestic energy development and provide a draft revised or substitute action for review.