

# Conversation Contents

clean and track changes

## Attachments:

/43. clean and track changes/1.1 Memo to ASLM on SO3349\_clean final draft\_041017\_113.docx

/43. clean and track changes/1.2 Memo to ASLM on SO3349\_track changes\_041017\_113.docx

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

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**From:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Sent:** Mon Apr 10 2017 11:27:44 GMT-0600 (MDT)  
**To:** Michael Nedd <mnedd@blm.gov>, Jerome Perez <jperez@blm.gov>, Kathleen Benedetto <kathleen\_benedetto@ios.doi.gov>, Shannon Stewart <scstewar@blm.gov>  
**CC:** "Bail, Kristin" <kbail@blm.gov>, Timothy Shannon <tshannon@blm.gov>, Steve Tryon <stryon@blm.gov>  
**Subject:** clean and track changes  
**Attachments:** Memo to ASLM on SO3349\_clean final draft\_041017\_113.docx  
Memo to ASLM on SO3349\_track changes\_041017\_113.docx

Hi,  
track changes version to easily see updates & clean version.

significant updates are in Next Steps on last page.

minor editorial & formatting changes elsewhere.

Karen

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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

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

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**From:** "Kelleher, Karen" <kkelleh@blm.gov>  
**Sent:** Mon Apr 10 2017 12:48:17 GMT-0600 (MDT)  
**To:** "Tryon, Steve" <stryon@blm.gov>  
**CC:** "Stewart, Shannon" <scstewar@blm.gov>  
**Subject:** Re: clean and track changes

i think we are waiting on kathy, mike, jerry ok

On Mon, Apr 10, 2017 at 2:46 PM, Tryon, Steve <[stryon@blm.gov](mailto:stryon@blm.gov)> wrote:  
Don't know if KK got back to you but this is ready to go to ASLM.

Thanks for your help, Shannon!

st

Steve Tryon  
Deputy Assistant Director, Resources and Planning  
Bureau of Land Management  
1849 C Street, NW  
Room 5654  
Washington, DC 20240  
202-208-4896

On Mon, Apr 10, 2017 at 2:06 PM, Stewart, Shannon <[scstewar@blm.gov](mailto:scstewar@blm.gov)> wrote:  
All

Let me know when this is good to go to ASLM. I would like to send before COB today if possible.

Thanks  
Shannon

On Mon, Apr 10, 2017 at 1:27 PM, Kelleher, Karen <[kkelleh@blm.gov](mailto:kkelleh@blm.gov)> wrote:

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## INFORMATION/BRIEFING MEMORANDUM FOR THE SECRETARY

**DATE:** April 12, 2017

**THROUGH:** Katharine MacGregor, Acting Assistant Secretary – Land and Minerals

**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.

### MITIGATION

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. Compensatory mitigation (b) (5) particularly to reduce residual impacts to threatened and endangered species, cultural resources, air, and water.

Mitigation measures are often incorporated into lease stipulations, permit conditions of approval, 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, can help to facilitate compliance with a variety of applicable laws.<sup>1</sup> The Permian Basin Agreement is an example of a voluntary program in which

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<sup>1</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

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.

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, 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 encourage the use of mitigation banks, exchanges and similar mechanisms. This 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.

## **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."

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.
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-**

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and Management Act (FLPMA), to prevent unnecessary or undue degradation of public lands.

**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 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.
6. **Multi-Scale Guidance for Identifying Shared Visual Resources and Mitigation Adverse Impacts through a Collective and Collaborative Process** (in progress). The National Park Service and the BLM are co-leading an interagency group to advance a coordinated effort to encourage thoughtful management of shared scenic resources, which encompass both natural and cultural settings. As part of its effort, the team developed the visual resources guidance called for under #15 of the “Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior.” The guidance underwent solicitor review but has not been finalized. The NPS and BLM agreed to wait for the new Administration to finalize the guidance. The draft guidance does not place requirements on agencies instead it encourages them to work cooperatively with states, industry, private property owners and stakeholders to identify important scenic views and visual resources and to forge a collective management strategy for their stewardship into the future, while resolving potential conflicts early in the decision making processes.

(b) (5)



(b) (5)

In addition, the Greater Sage Grouse Task Force requested a team of state and federal agencies, including BLM, discuss the implementation of mitigation requirements contained in the sage-grouse plans. The team produced the “Report to the Sage-Grouse Task Force: Greater Sage-Grouse Compensatory Mitigation (December 2016)” which identifies key principles and approaches to mitigation commonly agreed to by the state and federal agencies and provides an overview of each state’s approach to compensatory mitigation.

Prior to issuance of Secretarial Order 3330 and the 2015 Presidential Memorandum, the BLM took the following actions of note related to mitigation.

1. **BLM IM No. 2013-142, Interim Policy, Draft Regional Mitigation Manual Section (MS-1794)** (June 2013). This interim policy directed resource programs to move from case-by-case application of mitigation to a regional approach that involves anticipating future mitigation needs and strategically identifies mitigation sites and measures that can help the BLM achieve its resource objectives while improving permitting efficiencies and providing greater certainty to permit applicants, partners, stakeholders, and the public. The 2013 interim policy covered all resource programs and was the precursor to the current Mitigation Policy.
2. **BLM Arizona IM No. AZ-2012-031, Desert Tortoise Conservation Agreement Implementation** (June 2012). This IM articulates mitigation policy, including off-site compensation for the desert tortoise and its habitat on public lands managed by the BLM in Arizona, (b) (5).
3. **BLM Special Status Species Manual (M 6840)** (December 2008). This Manual identifies and interprets BLM’s responsibilities under the Endangered Species Act and mentions off-site compensatory mitigation as a means to further the conservation of federally listed species.
4. **BLM IM No. 2009-011, Assessment and Mitigation of Potential Impacts to Paleontological Resources** (October 10, 2008). The IM provides guidelines for assessing potential impacts to paleontological resources in order to determine mitigation steps for federal actions on public lands under the Federal Land Policy and Management Act and the National Environmental Policy Act. These guidelines also apply where a federal action impacts split-estate lands. It also provides field survey and monitoring procedures to help minimize impacts to paleontological resources determined to be significant that are expected to be adversely affected by a federal action.
5. **BLM IM No. 2008-204, Offsite Mitigation** (September 30, 2008). This instruction memorandum outlines policy for the use of offsite mitigation for authorizations issued by the BLM and replaced IM WO-2005-069 Interim Offsite Compensatory Mitigation for Oil, Gas, Geothermal and Energy Rights-of-way Authorizations (February 1, 2005).
6. **BLM National Environmental Policy Act Handbook, H-1790-1** (January 2008). Consistent with the CEQ regulations at 40 CFR 1508.20, this Handbook defines mitigation to include avoidance, minimization, and compensation. It also describes how mitigation can be used to reduce the effects of an action below the threshold of

significance thereby avoiding the need to prepare an EIS (i.e., to arrive at a “mitigated Finding of No Significant Impact (FONSI)”). It also provides guidance relating to BLM’s description of any effects that remain after mitigation measures have been applied, incorporation of mitigation measures into decision documents, and discussions of monitoring to ensure implementation of adopted measures.

7. **BLM IM No. 2008-050, Migratory Bird Treaty Act – Interim Management Guidance** (December 2007). This Memorandum provides direction to avoid, reduce, or mitigate adverse impacts to the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities.
8. **BLM land use planning regulations, 43 CFR 1610 and Land Use Planning Handbook H-1601-1** (2005). BLM’s land use planning regulations and handbook provide broad guidance on the development of land use plans. The handbook guidance includes the consideration of mitigation measures as appropriate to address resource, social, and economic impacts.
9. **BLM Protecting Cultural Resources Manual (MS-8140)** (December 2004). This Manual provides general guidance for protecting cultural resources from inadvertent adverse effects associated with BLM land use decisions, pursuant to the National Historic Preservation Act, the National Environmental Policy Act, Executive Order 11593, and the National Programmatic Agreement regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act.
10. **BLM hardrock mining regulations, 43 CFR 3809**. Among the general performance standards for surface management within a mining plan of operations is the requirement to “take mitigation measures specified by BLM to protect public lands” (43 CFR 3809.420(a)(4)).
11. **BLM FLPMA right of way regulations, 43 CFR 2800**. These regulations require holders to “restore, revegetate, and curtail erosion or conduct any other rehabilitation measures BLM determines necessary” including conditioning agreements on compensatory mitigation, 43 CFR 2805.12(i).
12. **BLM easement regulations, 43 CFR 2920**. These regulations “direct BLM to include terms and conditions that . . . “minimize damage” and “require the use to be located in an area which shall cause least damage to the environment” (43 CFR 2920.7(b)).

## **CLIMATE CHANGE**

For many years, the BLM has considered climate change, its effects on public lands and public land users, and how BLM decisions contribute to climate change, primarily through NEPA analyses for land use planning and project authorizations. BLM began working on formal climate change policy in 2008 through issuance of an Instruction Memorandum (IM), transmitting draft guidance for state and field office comments on incorporating climate change into land use planning and NEPA documents. In 2010, the CEQ released a document entitled “Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emission” for review by the public and agencies. The CEQ issued revised draft guidance in December of 2014 for review and comment. Final CEQ guidance was issued in August of 2016.

## BLM CLIMATE CHANGE ACTIONS

The BLM has adopted or is in the process of developing the following list of actions relating to the guidance identified in Secretarial Order 3349 and the 2016 CEQ's "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews."

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 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.

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). The 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). The 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). The 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 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. 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 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, 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, 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 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. 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 in its decision-making processes. 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 modification of these policies, rather than complete rescission.

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).

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.

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  
FOR THE ASSISTANT SECRETARY—LAND AND MINERALS MANAGEMENT**

**DATE:** April 12, 2017

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

**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.

**MITIGATION**

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. Compensatory mitigation (b) (5) [REDACTED] particularly to reduce residual impacts to threatened and endangered species, cultural resources, air, and water.

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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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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.

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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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 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.
6. **Multi-Scale Guidance for Identifying Shared Visual Resources and Mitigation Adverse Impacts through a Collective and Collaborative Process** (in progress). The National Park Service and the BLM are co-leading an interagency group to advance a coordinated effort to encourage thoughtful management of shared scenic resources, which encompass both natural and cultural settings. As part of its effort, the team developed the visual resources guidance called for under #15 of the “Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior.” The guidance underwent solicitor review but has not been finalized. The NPS and BLM agreed to wait for the new Administration to finalize the guidance. The draft guidance does not place requirements on agencies instead it encourages them to work cooperatively with states, industry, private property owners and stakeholders to identify important scenic views and visual resources and to forge a collective management strategy for their stewardship into the future, while resolving potential conflicts early in the decision making processes.

(b) (5)

(b) (5)

In addition, the Greater Sage Grouse Task Force requested a team of state and federal agencies, including BLM, discuss the implementation of mitigation requirements contained in the sage-grouse plans. The team produced the “Report to the Sage-Grouse Task Force: Greater Sage-Grouse Compensatory Mitigation (December 2016)” which identifies key principles and approaches to mitigation commonly agreed to by the state and federal agencies and provides an overview of each state’s approach to compensatory mitigation.

Prior to issuance of Secretarial Order 3330 and the 2015 Presidential Memorandum, the BLM took the following actions of note related to mitigation.

1. **BLM IM No. 2013-142, Interim Policy, Draft Regional Mitigation Manual Section (MS-1794)** (June 2013). This interim policy directed resource programs to move from case-by-case application of mitigation to a regional approach that involves anticipating future mitigation needs and strategically identifies mitigation sites and measures that can help the BLM achieve its resource objectives while improving permitting efficiencies and providing greater certainty to permit applicants, partners, stakeholders, and the public. The 2013 interim policy covered all resource programs and was the precursor to the current Mitigation Policy.
2. **BLM Arizona IM No. AZ-2012-031, Desert Tortoise Conservation Agreement Implementation** (June 2012). This IM articulates mitigation policy, including off-site compensation for the desert tortoise and its habitat on public lands managed by the BLM in Arizona, (b) (5).
3. **BLM Special Status Species Manual (M 6840)** (December 2008). This Manual identifies and interprets BLM’s responsibilities under the Endangered Species Act and mentions off-site compensatory mitigation as a means to further the conservation of federally listed species.
4. **BLM IM No. 2009-011, Assessment and Mitigation of Potential Impacts to Paleontological Resources** (October 10, 2008). The IM provides guidelines for assessing potential impacts to paleontological resources in order to determine mitigation steps for federal actions on public lands under the Federal Land Policy and Management Act and the National Environmental Policy Act. These guidelines also apply where a federal action impacts split-estate lands. It also provides field survey and monitoring procedures to help minimize impacts to paleontological resources determined to be significant that are expected to be adversely affected by a federal action.
5. **BLM IM No. 2008-204, Offsite Mitigation** (September 30, 2008). This instruction memorandum outlines policy for the use of offsite mitigation for authorizations issued by the BLM and replaced IM WO-2005-069 Interim Offsite Compensatory Mitigation for Oil, Gas, Geothermal and Energy Rights-of-way Authorizations (February 1, 2005).
6. **BLM National Environmental Policy Act Handbook, H-1790-1** (January 2008). Consistent with the CEQ regulations at 40 CFR 1508.20, this Handbook defines

mitigation to include avoidance, minimization, and compensation. It also describes how mitigation can be used to reduce the effects of an action below the threshold of significance thereby avoiding the need to prepare an EIS (i.e., to arrive at a “mitigated Finding of No Significant Impact (FONSI)”). It also provides guidance relating to BLM’s description of any effects that remain after mitigation measures have been applied, incorporation of mitigation measures into decision documents, and discussions of monitoring to ensure implementation of adopted measures.

7. **BLM IM No. 2008-050, Migratory Bird Treaty Act – Interim Management Guidance** (December 2007). This Memorandum provides direction to avoid, reduce, or mitigate adverse impacts to the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities.
8. **BLM land use planning regulations, 43 CFR 1610 and Land Use Planning Handbook H-1601-1** (2005). BLM’s land use planning regulations and handbook provide broad guidance on the development of land use plans. The handbook guidance includes the consideration of mitigation measures as appropriate to address resource, social, and economic impacts.
9. **BLM Protecting Cultural Resources Manual (MS-8140)** (December 2004). This Manual provides general guidance for protecting cultural resources from inadvertent adverse effects associated with BLM land use decisions, pursuant to the National Historic Preservation Act, the National Environmental Policy Act, Executive Order 11593, and the National Programmatic Agreement regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act.
10. **BLM hardrock mining regulations, 43 CFR 3809**. Among the general performance standards for surface management within a mining plan of operations is the requirement to “take mitigation measures specified by BLM to protect public lands” (43 CFR 3809.420(a)(4)).
11. **BLM FLPMA right of way regulations, 43 CFR 2800**. These regulations require holders to “restore, revegetate, and curtail erosion or conduct any other rehabilitation measures BLM determines necessary” including conditioning agreements on compensatory mitigation, 43 CFR 2805.12(i).
12. **BLM easement regulations, 43 CFR 2920**. These regulations “direct BLM to include terms and conditions that . . . “minimize damage” and “require the use to be located in an area which shall cause least damage to the environment” (43 CFR 2920.7(b)).

## CLIMATE CHANGE

For many years, the BLM has considered climate change, its effects on public lands and public land users, and how BLM decisions contribute to climate change, primarily through NEPA analyses for land use planning and project authorizations. BLM began working on formal climate change policy in 2008 through issuance of an Instruction Memorandum (IM), transmitting draft guidance [for state and field office comments](#) on incorporating climate change into land use planning and NEPA documents. In 2010, the CEQ released a document entitled “Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emission” for review by the public and agencies. The CEQ issued revised draft guidance in December of 2014

for review and comment. Final CEQ guidance was issued in August of 2016.

## **BLM CLIMATE CHANGE ACTIONS**

The BLM has adopted or is in the process of developing the following list of actions relating to the guidance identified in Secretarial Order 3349 and the 2016 CEQ's "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews."

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 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.

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). The 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). The 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). The 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 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. 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 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, 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, 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 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. 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 in its decision-making processes. 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 reconsideration or modification of these policies, rather than outright-complete rescission.

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 (b) (5) 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-and- whether specific past decisions should be reconsidered. In general, BLM believes the primary mitigation-related issues of concern relate to compensation. Therefore, the BLM-and recommends that reconsideration of its mitigation policies focus on its approach to compensation in ongoing or future land use plans and ongoing or future 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).

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~~If the BLM is asked to reconsider or modify its 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 consideration of greenhouse gases, such as evaluation of downstream effects.

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.