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1. Updates, supersedes, or rescinds:

Secretarial Order (SO) 3360 rescinded Manual Section MS-1794. SO 3398 revoked SO 3360. Manual Section MS-1794 is being reinstated with editorial and formatting updates; no substantive updates were made to this Manual Section. This Manual Section is the foundational policy when considering mitigation in advance of anticipated public land uses or applying mitigation to address impacts to resources from public land uses.

2. Explanation of Materials Transmitted:

Secretarial Order 3398 revoked SO 3360. IM 2019-018 issued on December 6, 2018 under SO 3360 was then rescinded by IM 2021-038 on July 12, 2021 because it was inconsistent with policy direction in SO 3398 and is superseded by reinstatement of MS-1794. This release of the Manual Section supersedes the initial release (1-1782) of the Manual Section MS-1794.

3. Reports Required:

None

4. Delegations of Authority Updated:

None

5. Filing Instructions: File as directed below.

REMOVE

All of MS-1794 (Rel. 1-1782)  
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9/22/21

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## Chapter 1. Overview

### 1.1. Purpose

The purpose of this policy guidance is to support the Bureau of Land Management's (BLM) multiple use and sustained yield mission by providing policies to—

- A. Implement consistent principles and procedures for mitigation in the BLM's authorization of public land uses;
- B. Consider mitigation well in advance of making decisions about anticipated public land uses by identifying opportunities for mitigation in mitigation strategies and incorporating mitigation into land use plans and programmatic or large geographic-scale NEPA analyses; and
- C. Apply mitigation to address reasonably foreseeable impacts to resources (and their values, services, and/or functions)<sup>1</sup> from public land uses.

### 1.2. Objectives

The objectives of this manual section are to provide guidance to BLM managers and staff when determining what the appropriate mitigation requirements should be as conditions for authorization of a proposed public land use, including mitigation in advance of anticipated public land uses, and applying mitigation to address impacts to resources from public land uses.

### 1.3. Authority

- A. Principal authorities that relate to or compel the need for mitigation in the BLM include:
  1. Federal Land Policy and Management Act (FLPMA), 43 USC 1701 et seq.
  2. National Environmental Policy Act (NEPA), 42 USC 4321 et seq.
  3. Mineral Leasing Act of 1920, 30 USC 181 et seq.; Mineral Leasing Act for Acquired Lands, 30 U.S.C. 351 et seq.
  4. Mining Law of 1872, 30 USC 22 et seq.
  5. Endangered Species Act, 7 USC 136, 16 USC 1531 et seq.
  6. National Landscape Conservation System Act, 16 USC 7201 et seq.

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<sup>1</sup> For brevity, in this policy, the term “resources (and their values, services, and/or functions)” is also referred to in this manual simply as “resources.”

7. National Historic Preservation Act, 54 USC 300101 et seq.
  8. The Wyden Amendment, 16 USC 1011.
  9. Council on Environmental Quality (CEQ) NEPA Regulations, 40 CFR 1500 et seq.
  10. DOI NEPA Regulations, 43 CFR Part 46.
  11. BLM Planning Regulations, 43 CFR Part 1600.
  12. Mitigation provisions in other applicable BLM regulations
- B. Several additional authorities address specific resources on the public lands, including, but not limited to, the Bald and Golden Eagle Protection Act, Clean Water Act, Clean Air Act, Federal Cave Resources Protection Act, Fish and Wildlife Coordination Act, and the Migratory Bird Treaty Act.
- C. In addition to the guidance provided in this policy, the BLM should consider individual land use authorization applications in the context of the laws that apply to each application. The applicable law may provide additional or limiting authority for identifying, considering, and requiring mitigation. Also, the terms and conditions of existing land use authorizations may limit the type or amount of mitigation that BLM may require.

#### **1.4. Responsibilities**

- A. It is the responsibility of the Director and Deputy Directors to provide for the overall management of the agency, including the implementation of this policy.
- B. It is the responsibility of the Assistant Directors to—
1. Provide for program development and support to state offices to implement this policy consistently; and
  2. Coordinate with other Federal agencies, and Tribal and State governments, as appropriate, when implementing this policy.
- C. It is the responsibility of the State Directors to—
1. Implement this policy within offices under their authority;
  2. Provide for state-wide program development, technical management assistance, and support to district and field offices to implement this policy across the state;
  3. Coordinate with other state directors, Federal agencies, and Tribal and State governments, as appropriate, when implementing this policy;

4. Support the development and implementation of Mitigation Strategies and the incorporation of mitigation into land use plans and public land uses, consistent with applicable law; and
  5. Support the development of compensatory mitigation mechanisms (e.g., mitigation banks, mitigation exchanges, mitigation funds), to the extent appropriate, practicable, and consistent with applicable law.
- D. It is the responsibility of the District Managers and Field Managers to—
1. Implement this policy within offices under their authority;
  2. Provide for district office and field office program development, technical management assistance, and support to implement this policy across the offices;
  3. Coordinate with other district managers and field managers, other Federal agencies, and Tribal, State, and local governments, as appropriate, when implementing this policy;
  4. Support the development and implementation of Mitigation Strategies and incorporation of mitigation into land use plans;
  5. Support the development of compensatory mitigation mechanisms (e.g., mitigation banks, mitigation exchanges, mitigation funds), to the extent appropriate, practicable and consistent with applicable law;
  6. Identify and analyze mitigation, including best management practices, to address reasonably foreseeable impacts to resources from public land uses, identify any required mitigation in decision documents, and include any required mitigation in land use authorizations;
  7. Ensure any required mitigation is implemented consistent with applicable law, decision documents, and land use authorizations; and
  8. Fulfill the reporting requirements identified in this policy.
- E. It is the responsibility of the National Operations Center Director to—
1. Provide for technical management assistance to implement this policy; and
  2. Implement this policy with respect to files and records maintenance.

### 1.5. References

- A. Principal references for this guidance are—

1. Presidential Executive Order 13604, Improving Performance of Federal Permitting and Review of Infrastructure Projects, March 22, 2012;
2. Presidential Memorandum, Modernizing Federal Infrastructure Review and Permitting Regulations, Policies, Procedures, May 17, 2013;
3. Council on Environmental Quality's January 14, 2011 Memorandum: Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact;
4. BLM Handbook H-1601-1, Land Use Planning;
5. BLM Handbook H-1790-1, National Environmental Policy Act; and
6. Mitigation provisions in other applicable BLM Handbooks.

## **1.6. Policy**

When evaluating the mitigation of impacts to resources (and their values, services, and/or functions), consistent with applicable law, the BLM will consider the full mitigation hierarchy, described below, and implement mitigation, as appropriate, at all relevant scales, while incorporating best management practices. 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 the public land user, cooperating agencies, and other stakeholders, including the public.

## **1.7. Files and Records Maintenance**

- A. All records should be maintained in the appropriate case file and comply with any applicable BLM corporate data standards. In addition to the case file, the following records, once submitted by the applicable BLM office, should also be maintained by the National Operations Center—
  1. Compensatory mitigation monitoring reports;
  2. The geospatial area impacted by the public land use and that of compensatory mitigation measures and sites, with metadata describing the associated public land use (e.g., case file number) and the duration that the measure and site should be durable; and
  3. The geospatial area of mitigation strategies.
- B. All geospatial data, including maps and geospatial layers, shall comply with national geospatial standards, will be compatible with BLM corporate data standards such as

those for the Cadastral National Spatial Data Infrastructure (CadNSDI), PLSS Data Set, and the Land Status System (LR2000).

## Chapter 2. Principles for Mitigation in the BLM

### 2.1. Mitigation

The BLM will identify, consider, and, as appropriate, require mitigation to address reasonably foreseeable impacts to resources from public land uses (BLM-proposed and externally proposed (i.e., proposed by a party outside of the BLM)).

- A. The Council on Environmental Quality (CEQ) has defined mitigation in its regulations at 40 CFR 1508.1 to include:
- avoiding the impacts by not taking a certain action or parts of an action,
  - minimizing impacts by limiting the degree or magnitude of the action and its implementation,
  - rectifying the impact by repairing, rehabilitating, or restoring the affected environment,
  - reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and
  - compensating for the impact by replacing or providing substitute resources or environments (see Handbook Chapter 3).

Collectively, the five aspects of mitigation (avoid, minimize, rectify, reduce/eliminate, compensate) are referred to as the mitigation hierarchy because they are generally applied in a hierarchical manner (Manual Section, Chapter 3). All five aspects of mitigation can, as a practical matter, be summarized as avoidance, minimization, and compensation. In this handbook, when referring to mitigation, the full five-prong mitigation hierarchy is implied.

- B. Mitigation addresses the adverse direct and indirect impacts to the baseline conditions of resources (including consideration of the quantity, quality, and characteristics of those resources) from public land uses. The assessment of cumulative impacts provides a broader context for understanding the direct and indirect impacts. When assessing impacts of authorizing a public land use, the BLM should use, as appropriate, consistent and transparent methods and consider the full life-cycle of a public land use. Whenever possible, the same or compatible methods, including metrics, as used to identify resource objectives (e.g., in a land use plan) should be used to measure the reasonably foreseeable impacts (as compared to baseline conditions) of a proposed public land use, and should be used to design and monitor mitigation measures.
- C. The BLM identifies and considers mitigation to address impacts to resources in NEPA analyses for proposed public land uses, and, as appropriate, requires mitigation to address impacts to resources in the associated decision documents and land use authorizations (Handbook Chapter 6 and Handbook Chapter 7). The BLM will identify, consider, and, as appropriate, require mitigation, to address reasonably foreseeable impacts, whether or not the impacts are “significant” (as defined by 40 CFR 1508.1).

The BLM has authority to require appropriate mitigation under a variety of authorities, including FLPMA (Manual Section 1.3).

- D. The BLM will, through the land use planning process, for resources that are considered important, scarce, sensitive, or have a protective legal mandate, identify mitigation standards. As appropriate and through application of the mitigation hierarchy, mitigation standards should seek to achieve a no net loss or net benefit outcome for such resources. In some cases, mitigation standards are identified in law and therefore should be incorporated into land use plans, as appropriate. When identified in a land use plan, the BLM will adhere to these or more protective mitigation standards for any applicable public land use, consistent with the law(s) under which BLM authorizes the land use (Handbook Chapter 5.1.A).

If a mitigation standard has not yet been identified in a land use plan, the BLM may identify mitigation standards for resources that are considered important, scarce, sensitive, or have a protective legal mandate, as appropriate, in other decision documents supported by appropriate NEPA analysis.

The BLM may also identify mitigation standards for resources that are considered important, scarce, sensitive, or have a protective legal mandate in mitigation strategies (Handbook Chapter 4.4), if mitigation standards have not already been identified by the BLM for those resources. If the mitigation strategy is not incorporated in a decision document, supported by adequate NEPA analysis, then the BLM should consider the findings and recommendations that are contained in the mitigation strategy through future decision-making processes.

- E. The need for, type of, and amount of avoidance, minimization, rectification, and reduction or elimination over time should be based on applicable mitigation standards, what is appropriate and practicable, and should also include other considerations, such as the resource's importance, scarcity, or sensitivity, at all relevant scales, and whether the resource for which adverse impacts will be mitigated has legal, regulatory, land use plan, or policy protections that limit or prevent certain types of impacts (Handbook Chapter 3).

Existing legal authorities contain additional protections for some resources that are of such irreplaceable character that minimization and compensatory mitigation measures may not be adequate or appropriate, and therefore avoidance is the only appropriate form of mitigation, consistent with applicable law. The BLM will seek to avoid, to the greatest extent practicable, reasonably foreseeable impacts to the National Park System, National Wildlife Refuge System, National Landscape Conservation System (National Conservation Lands), Areas of Critical Environmental Concern, and other special status areas (Handbook Chapter 3.1.D).

- F. The need for compensatory mitigation should be based on applicable mitigation standards, and what is appropriate for each individual proposed public land use, taking into consideration applicable law, policies, land use plans, and mitigation strategies

(Handbook Chapter 3.5.B). In general, the BLM should seek to identify compensatory mitigation measures that will appropriately mitigate the reasonably foreseeable residual effects that warrant compensatory mitigation, after first considering and applying, as appropriate, the first four mitigation approaches in the five-prong mitigation hierarchy and achieve the maximum benefit to the impacted resources within the context of the conditions and trends of those resources, at all relevant scales. All compensatory mitigation obligations should be commensurate with the impacts from the public land uses (Handbook Chapter 3.5.F.1). Additionally, the BLM's general preference is to achieve compensatory mitigation outcomes in advance of public land uses' impacts (Handbook Chapter 3.5.F.2).

## 2.2. Landscape-Scale Approach

Mitigation should be considered and implemented on a landscape-scale. A landscape-scale approach considers baseline conditions, reasonably foreseeable impacts, including impacts that extend beyond the BLM's administrative boundaries, and the application of the mitigation hierarchy in the context of the conditions and trends of resources, at all relevant scales, consistent with applicable law.

- A. A landscape-scale approach facilitates the mitigation of impacts to resources within the relevant geographic area of those resources, however narrow or broad.
- B. Application of the mitigation hierarchy at a landscape-scale may involve multiple stakeholders and tradeoffs among a broad range of resources.
- C. The BLM should consider the management responsibilities and interests of other Federal agencies, Tribal, State, and/or local governments with the relevant landscape.
- D. A landscape-scale approach paired with the mitigation hierarchy process allows for the identification of the most appropriate combination of mitigation measures across all relevant scales to provide the maximum benefit to the impacted resources. For example, in cooperation with other land managers, this could include development of common reclamation and restoration standards, or landscape-wide surface disturbance limitations to reduce impacts to wide-ranging species and their migratory routes and seasonal habitat.
- E. A landscape-scale approach also allows for identification of the most effective compensatory mitigation sites without implying a preference for siting compensatory mitigation closer to or farther away from the impacted site or implying a preference for federally managed lands. The lack of preference for federally managed lands in siting compensatory mitigation is due, in some instances, to the BLM's interest in benefiting specific impacted public land resources.

The maximum benefit to the impacted resource might be achieved at a compensatory mitigation site either geographically close or geographically far from the impacted site, so long as the mitigation at that site has a reasonable relationship to benefiting the

public land resources where the resource impact is expected to occur or is occurring. The site that provides the maximum benefit to the public land resources does not need to be near the site where the resource impact occurred. Compensatory mitigation measures sited on non-BLM-managed lands, which may include lands managed by other land management agencies, will require the consent of the landowner or manager.

For example, this could include identifying a compensatory mitigation site near the impacted site for a locally important species, such as a scarce and locally endemic plant, that may decline due to the impact of the public land use. Or it may include identifying a compensatory mitigation site far from the site of the public land use and potentially on non-public lands (with a willing landowner), where the species may have a more pressing ecological need (such as scarce breeding grounds), as long as a reasonable relationship is maintained between the impacts of the public land use and the compensatory mitigation measure(s) implemented at that site.

- F. Compensatory mitigation may be appropriate even if the compensatory mitigation measures are sited outside the boundaries of the lease, grant, mining plan of operations, etc., as long as a reasonable relationship is maintained between the impacts of the public land use and the compensatory mitigation measure(s) being implemented at that site. The use of compensatory mitigation does not mean that BLM may approve public land uses that cause unnecessary or undue degradation to the public lands (see Manual Section 6.3).
- G. The BLM may also develop landscape-scale mitigation strategies (Handbook Chapter 4), in addition to implementing the landscape approach in land use plans (Handbook Chapter 5) and when authorizing public land uses (Handbook Chapter 6 and Handbook Chapter 7).

### **2.3. Best Management Practices**

As applicable to mitigation, best management practices (BMPs) are state-of-the-art, efficient, appropriate, and practicable mitigation measures for avoiding, minimizing, rectifying, and reducing or eliminating impacts over time. The BLM should identify, consider, and, as appropriate, require the use of BMPs to address reasonably foreseeable impacts to resources, rather than routinely relying on past practices. Depending on the public land use, BLM may seek an applicant's voluntary commitment to follow BMPs or require BMPs as a condition of authorization if allowed under existing legal authority.

## 2.4. Durability

The BLM should identify, consider, and, as appropriate, require mitigation that is durable, i.e., it will be effective for the duration of the impacts resulting from the associated public land use.

- A. Durability includes three types of considerations for mitigation measures and for compensatory mitigation sites: resource, administrative, and financial.
  1. Resource considerations for durability include, but are not limited to, ensuring that mitigation measures and/or compensatory mitigation sites achieve and maintain their required outcomes, including being resilient to changing circumstances (e.g., climate change, fire, invasive species), for the duration of the impacts.
  2. Administrative considerations for durability include, but are not limited to, restricting incompatible uses on mitigation sites (e.g., through the use of a conservation easement on private land), or permitting land uses that are supportive of the mitigation sites (e.g., additional restoration projects), through permit terms and conditions, land use planning, or legal designations.
  3. Financial considerations for durability include, but are not limited to, ensuring there will be financing sufficient to maintain, monitor, and adaptively manage mitigation measures and/or compensatory mitigation sites for the duration of the impacts from the public land use (Handbook Chapter 7.2).
- B. The duration of the impact is the time that resource impacts (including direct and indirect effects) from a public land use persist, even if this time period extends beyond the expiration of the public land use. The duration of *some* impacts may be in perpetuity, such as the construction of a new transmission line or a county road. The BLM should use the best available science to estimate the duration of the impact. For compensatory mitigation measures and sites, the BLM should consider the duration of the residual effects to be at least until the residual effects have been restored.
- C. As appropriate, the BLM should ensure that the responsible party is obligated to maintain the mitigation's durability and correct any loss of durability (i.e., a reversal), unless the outcome is not achieved due to a force majeure event. If the loss of durability is not corrected, the BLM will take appropriate follow-up actions, including enforcement actions, consistent with applicable law and as provided for in applicable regulations (see Handbook Chapter 7.3).
- D. Details about tools to achieve (degrees of) durability for compensatory mitigation sites on BLM-managed lands and private lands are described in Handbook Appendix 1.

## 2.5. Mitigation Measures' Outcomes and Performance Standards

When developing mitigation measures, the BLM should establish clearly defined and measurable outcomes for those measures through regulation, land use planning, or in another decision document, as appropriate, although it may also be necessary to establish minimum actions (i.e., outputs) that the responsible party must take to achieve those outcomes. The BLM should also develop performance standards through regulations, land use planning, or in another decision document, as appropriate, as part of the mitigation requirements that the BLM will use to monitor and assess the effectiveness of compensatory mitigation measures.

- A. Mitigation measures should be defined by outcomes and may also include specific outputs.
  - 1. Mitigation measures' outcomes should support the applicable land use plan's resource objectives, and/or the objectives of other Federal agencies, Tribal, State and/or local governments, consistent with applicable law.
  - 2. In general, the BLM should anticipate the need to adapt the mitigation measures to meet the required mitigation outcomes by analyzing different adaptive scenarios in the NEPA analysis for those mitigation measures. For externally proposed public land uses, the BLM should ensure that adaptive, outcome-based mitigation is adequately described in the land use authorization (Handbook Chapter 7).
- B. The BLM should use performance standards to monitor and assess the effectiveness of the mitigation measure in achieving the required outcome. The BLM should use the same or compatible methods, including metrics, that it used to identify resource objectives (e.g., in a land use plan) and/or that it used to measure the reasonably foreseeable impacts (as compared to baseline conditions) of a proposed public land use (Manual Section 2.1.B), when designing these performance standards to be able to best measure the effectiveness of the mitigation measures for those impacts.

## 2.6. Implementation (Compliance) and Effectiveness Monitoring

The BLM should ensure that mitigation measures are implemented (i.e., complied with) and monitored for effectiveness, as provided for in land use authorizations, and consistent with applicable law and regulation.<sup>2</sup>

For some land uses, applicable regulations provide that the BLM may require the public land user to monitor the effectiveness of its compliance with applicable mitigation measures. For example, the BLM's regulations require operators who file a mining plan of operations under 43 CFR 3809 to include a proposed plan for monitoring the effect of their mining operations. The applicable regulation, 43 CFR 3809.401(b)(4), requires operators to design monitoring plans to demonstrate compliance with the plan of operations (which would include any mitigation

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<sup>2</sup> For additional guidance on monitoring and mitigation, please refer to: Executive Office of the President, Council on Environmental Quality's *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact* January 14, 2011.

measures required under the plan), provide early detection of potential problems, and supply information to assist in directing corrective action, if necessary.

In other instances, the BLM may have the discretion to require a public land user to monitor the effectiveness of mitigation measures without express regulatory provisions. Under other circumstances, the BLM may have to conduct the monitoring (e.g., an existing lease where neither applicable regulations nor the terms of the lease provide for monitoring). If the BLM has questions about how to provide for monitoring, it should consult with the Office of the Solicitor.

The BLM will take appropriate follow-up actions, including enforcement actions, consistent with applicable law and as provided for in applicable regulations, as necessary, if the mitigation measures are not implemented as designed or if the mitigation measures are not effective in achieving the required mitigation outcomes, based on effectiveness monitoring (see Handbook Chapter 7.3), unless the outcome is not achieved due to a force majeure event.

- A. Implementation (Compliance). The BLM should conduct regular compliance inspections for the duration of the land use authorization to verify that mitigation measures are being implemented as required in the land use authorization.
- B. Effectiveness Monitoring. Consistent with applicable law, the BLM should verify that the public land user is achieving the required outcomes and/or implementing the appropriate adaptive management measures.
  1. Consistent with applicable law, the BLM should apply the rule of reason when identifying the type, extent, and duration of effectiveness monitoring for mitigation measures, as guided by the degree of uncertainty associated with a mitigation measure, the amount and type of the mitigation measure, and the potential need for adaptive management.
    - a. While effectiveness monitoring may cease when a mitigation measure's outcome has been achieved, in some cases, effectiveness monitoring may be necessary for the duration of the impacts from the public land use.
    - b. In some cases, especially where reasonably foreseeable impacts have landscape-scale implications, effectiveness monitoring may be necessary at fine-, mid-, and broad-scales in order to ensure that a mitigation measure's outcome is being achieved.
  2. As mentioned in the first paragraph of this section, the BLM should ensure that mitigation measures are implemented and monitored for effectiveness, as provided for in land use authorizations, and consistent with applicable law and regulation. Where a responsible party uses a third-party compensatory mitigation mechanism to fulfill a compensatory mitigation requirement, it is acceptable for the responsible party to transfer monitoring responsibilities to the third party. (Handbook Chapter 3.5.I).

When making decisions regarding applications for land uses for which BLM has limited discretion, if there are no applicable regulations or applicable terms and conditions in an existing land use authorization that require mitigation effectiveness monitoring, the BLM will conduct the effectiveness monitoring to assess whether the public land user is complying with the mitigation measures that BLM has required, unless the BLM develops a written agreement with another entity to conduct the effectiveness monitoring.

3. Whenever appropriate, effectiveness monitoring should be designed around the same or compatible methods, including metrics, that it used to identify resource objectives (e.g., in a land use plan), measure the reasonably foreseeable impacts (as compared to baseline conditions) of a proposed public land use (Manual Section 2.1.B), and/or define the mitigation measure's outcome and performance standards (Manual Section 2.5).
4. Whenever appropriate, the BLM should incorporate effectiveness monitoring into existing monitoring programs and sampling grids managed by the BLM or other entities to increase the utility and rigor of these data. Similarly, whenever appropriate, effectiveness monitoring should comply with BLM-adopted, standardized, monitoring protocols (e.g., *BLM Core Terrestrial Indicators and Methods (Technical Note 440)*<sup>3</sup>). In this case, these monitoring data should be incorporated into the appropriate databases, etc.

## 2.7. Adaptive Management<sup>4</sup>

- A. The BLM should use the best available science, implemented mitigation measures, and associated effectiveness monitoring to implement, or require the responsible party to implement, consistent with applicable law, adaptive management of mitigation measures to reduce uncertainty and achieve the required mitigation outcomes. The BLM should also use these lessons learned to guide and improve the development and implementation of future mitigation measures.
- B. Additionally, in a land use plan or land use authorization, the BLM may implement an adaptive management framework where specific thresholds for the level of acceptable impacts are identified, as well as specific mitigation measures that will be implemented if the level of acceptable impacts is exceeded.

## 2.8. Reporting

- A. Depending on the amount and type of the mitigation measures, the BLM in a land use authorization should require the responsible party to prepare and submit periodic

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<sup>3</sup> <https://aim.landscapetoolbox.org/wp-content/uploads/2015/09/TN440-BLM-Core-Terrestrial-Indicators-and-Methods.pdf>

<sup>4</sup> For additional guidance on adaptive management, please refer to DOI's adaptive management technical and applications guide.

reports to the appropriate BLM office on the implementation and effectiveness of the mitigation measures, consistent with applicable law, including the Paperwork Reduction Act.

- B. The BLM is responsible for reviewing monitoring reports to ensure that the public land user is complying with the terms and conditions of the associated land use authorization. The BLM will use these reports to help determine if the responsible party needs to complete any necessary corrective actions in order to achieve the required mitigation outcomes.

## 2.9. Responsible Parties

- A. When mitigation obligations are included in a land use authorization, the BLM will identify a responsible party in the land use authorization that is accountable for fulfilling all aspects of mitigation obligations, including but not limited to, ensuring the durability and effectiveness of mitigation measures, achieving mitigation measures' outcomes, and complying with monitoring, adaptive management, and reporting requirements.
- B. If mitigation measures are ineffective, as determined by effectiveness monitoring, the BLM will work with the responsible party to identify appropriate actions for achieving the required mitigation outcomes and for complying with the terms and conditions of applicable land use authorizations. The BLM will take appropriate follow-up actions, including enforcement actions, consistent with applicable law and as provided for in applicable regulations, as necessary, if the mitigation measures were not implemented as designed or if the mitigation measures have not been effective in achieving the required mitigation outcomes, based on effectiveness monitoring (see Handbook Chapter 7.3), unless the outcome is not achieved due to a force majeure event.

## 2.10. Best Available Science

- A. The BLM will use the best available science<sup>5</sup> (e.g., peer reviewed research and methods, monitoring data and modeling results, well-documented case studies, etc.), including the principles and practices identified in *Advancing Science in the BLM: An Implementation Strategy*<sup>6</sup>, to inform the identification and analysis of reasonably foreseeable impacts and mitigation for those impacts and achieve effective mitigation outcomes.

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<sup>5</sup> The phrases “best available science” or “best available data” are often referred to as BLM policy for the information contained in agency documents (BLM Information Quality Act Guidelines, Updated April 2, 2018). BLM policy that data comprise high quality information is consistent with Office of Management and Budget guidance for Federal agencies in implementing Information Quality Act requirements that data be of high objectivity, integrity, and utility for agency decision-making.

<sup>6</sup> <https://www.blm.gov/documents/national-office/public-room/strategic-plan/advancing-science-blm-implementation-strategy>

- B. For compensatory mitigation obligations, it may be appropriate to include scientific studies or inventories that can aid in determining the appropriate type, duration, and amount of compensation. Generally, scientific studies or inventories, on their own, should not be considered compensation, unless the studies or inventories are clearly necessary to inform the maintenance, monitoring, or adaptive management of the compensatory mitigation measures, or otherwise directly benefit the management of the impacted resources.

### **2.11. Communication**

- A. The BLM should employ effective, early, and frequent communication about the identification, analysis, and implementation of mitigation with the public land user, cooperating agencies, and other stakeholders, including the public. This communication includes extending opportunities to participate in the development of mitigation strategies and land use plans, and to provide input on the analysis for proposed public land uses.
- B. Effective communication regarding the identification and analysis of mitigation measures is essential to proactively address disagreements and generate broad support for mitigation.
- C. Coordination with other Federal agencies, Tribal, State and/or local governments can help to ensure that mitigation is efficient, effective, durable, additional, non-duplicative, and mitigates impacts that extend beyond the BLM's administrative boundaries.

### **Chapter 3. Implementing the Mitigation Hierarchy**

The BLM will implement the mitigation hierarchy when identifying, considering, and, as appropriate, requiring mitigation, to address reasonably foreseeable impacts to resources (see Handbook Chapter 3). The BLM's aim is to apply the mitigation hierarchy in the manner that achieves the maximum benefit to the impacted resource, consistent with applicable law. First, the BLM will seek to require the public land user to avoid impacts, consistent with applicable law (e.g., by altering project design, location, or timing); then the BLM will seek to require the public land user to minimize impacts (e.g., through project modifications, permit conditions, interim and final reclamation, etc.); and, generally, only if those approaches are insufficient to fully mitigate the impacts from a proposed public land use, will the BLM seek to require the public land user to compensate for some or all of the remaining impacts from the proposed public land use (i.e., residual effects), based on the criteria identified in Handbook Chapter 3.5.B. In limited situations, specific circumstances may exist that warrant deviating from this sequence, such as when seeking to achieve the maximum benefit to impacted resources or when constrained by the terms and conditions of existing land use authorizations or applicable law. In limited instances, the BLM might determine that the impacts (including residual effects) of public land uses may be acceptable and will not require mitigation, based on the criteria identified in Handbook Chapter 3.

In many cases, the five aspects of the mitigation hierarchy will overlap. For example, consistent with lease terms and conditions, interim reclamation of a producing oil and gas well may be considered a form of either minimizing or reducing/eliminating impacts over time. Final reclamation, on the other hand, is a form of rectification, but could be considered compensation when an operator performs final reclamation and restoration of orphaned oil and gas well locations and access roads (i.e., locations that no longer have a responsible party) in order to obtain permits for additional new wells and roads in an area that has a surface disturbance limitation/cap in the land use plan, consistent with lease terms and conditions.

#### **Chapter 4. Advance Consideration of Mitigation: Mitigation Strategies**

Mitigation strategies identify, consider, and communicate potential mitigation needs and mitigation measures in a geographic area, at relevant scales, well in advance of anticipated public land uses (BLM-proposed and externally proposed) (see Handbook Chapter 4). The BLM should prepare mitigation strategies where the condition of resources (including their values, services, and/or functions) is declining or has a reasonable potential to decline and new impacts to those resources are reasonably foreseeable, or where resources would otherwise benefit from advance consideration of landscape-scale mitigation. Effective mitigation strategies are created and maintained by fully engaging stakeholders in the process. Mitigation strategies will help to increase the effectiveness, consistency, and transparency of mitigation by shifting away from a reactive and permit-by-permit approach to a more efficient, proactive model that identifies mitigation standards (if they do not already exist) and pre-identifies and pre-considers mitigation measures. Mitigation strategies will assist the BLM to better anticipate reasonably foreseeable impacts, strategically apply the mitigation hierarchy, and generate better outcomes for impacted resources. Mitigation strategies may be developed within a NEPA analysis or developed independently to inform future NEPA analysis and/or decision-making.

**Chapter 5. Advance Consideration of Mitigation: Land Use Planning (interim)**

*[This section on mitigation in land use planning is interim policy and will be superseded by relevant updates to the BLM's land use planning handbook.]*

The land use planning process provides one method for identifying, considering, and, as appropriate, requiring mitigation well in advance of anticipated public land uses (see Handbook Chapter 5). Additionally, the land use planning process provides an opportunity to incorporate relevant components of a mitigation strategy into a land use plan (Handbook Chapter 4). The land use plan can identify resource objectives and associated mitigation standards, land use allocations, and management actions to facilitate the application of appropriate mitigation for public land uses. Also, to support the implementation of durable compensatory mitigation measures on BLM-managed lands, the BLM can support or identify compensatory mitigation sites with land use allocations that limit or exclude incompatible uses of those sites, consistent with applicable law.

During the land use planning process, consistent with applicable law, the BLM will consider and, as appropriate, include in the land use plan:

- A. Scientifically informed and measurable land use plan objectives for resources, which include mitigation standards for resources that are considered important, scarce, sensitive, or have a protective legal mandate (e.g., no net loss, net benefit).
- B. Land use allocations that limit or exclude certain uses (e.g., right-of-way exclusion areas, closures or constraints to fluid mineral leasing) or concentrate certain uses in defined areas (e.g., solar energy zones) or corridors (e.g., right-of-way corridors) in order to avoid and minimize impacts to resources from public land uses. The land use planning process may not be used as a substitute for a withdrawal to close lands to the operation of the Mining Law.
- C. Management actions (e.g., best management practices) that help to support the land use plan's resource objectives, including applicable mitigation standards.
- D. Land use allocations that support or identify compensatory mitigation sites on BLM-managed lands and limit or exclude incompatible uses of those sites. Compensatory mitigation sites may be located within formal designations, such as Areas of Critical Environmental Concern (ACEC) or units of the National Conservation Lands or may be located within general geographic areas without a formal designation where incompatible uses are excluded or restricted.

## **Chapter 6. Mitigation of Public Land Uses**

The BLM will identify, consider, and, as appropriate, require mitigation to address reasonably foreseeable impacts to resources through NEPA analyses and within associated decision documents and land use authorizations. The BLM should ensure that mitigation measures have clearly defined and measurable outcomes and are implemented and monitored for effectiveness.

### **6.1. NEPA for Public Land Uses**

Through the NEPA analysis process, the BLM will, to the greatest extent possible, identify and consider the effectiveness of mitigation to address reasonably foreseeable impacts (both significant and non-significant) to resources (and their values, services, and/or functions) from proposed public land uses (BLM-proposed and externally proposed). The BLM will identify any required mitigation in the decision document(s) associated with the NEPA analysis and include any required mitigation in the land use authorization(s). See Handbook Chapter 6 and Handbook Chapter 7.

Mitigation should not be an afterthought; mitigation should be considered early and throughout the NEPA analysis process (e.g., scoping, proposed action, alternatives, environmental effects). For example, for BLM-proposed public land uses, the BLM should incorporate appropriate mitigation into the proposed project's design as an integral component of the proposed action (i.e., project design features). Or, for externally proposed public land uses, the BLM should encourage applicants to propose appropriate mitigation for their public land use. Where they exist and are relevant, mitigation strategies will be used to inform the NEPA analyses for applicable proposed public land uses.

### **6.2. Denying Proposed Public Land Uses**

Consistent with applicable law, the BLM generally has broad discretion to grant, grant with modifications, or deny a proposed public land use. Even where the agency has determined that a project proponent has a legal right to conduct the public land use, the BLM often has a degree of discretion on where and how public land uses may occur. Among the reasons that the BLM might deny a discretionary public land use are the inability to mitigate effectively the reasonably foreseeable impacts from a proposed public land use, an applicant's refusal to accept appropriate mitigation requirements, or if the action would violate a law, violate a regulation, violate a policy, or would not conform to a land use plan. Consistent with applicable law, the BLM may decline to authorize discretionary public land uses, including when the impacted resources are too important, scarce, or sensitive to withstand impacts or have legal, regulatory, land use plan, or policy protections that limit or prevent certain types of impacts, even after the implementation of mitigation. Consistent with applicable law, the BLM may also use its discretion to deny public land uses if impacts are expected to extend beyond the BLM's administrative boundaries and negatively affect the management responsibilities of other entities (e.g., units of the National Park System, State Parks) or impact resources managed by those entities that are too important, scarce, or sensitive to withstand those impacts or have legal, regulatory, land use plan or policy protections that limit or prevent certain types of impacts.

### **6.3. Unnecessary or Undue Degradation**

The BLM cannot authorize a public land use that would result in unnecessary or undue degradation to the public lands (FLPMA § 302(b), 43 USC § 1732(b)). Proposed public land uses that are expected to cause unnecessary or undue degradation will either be denied or modified (via avoidance, minimization, rectification, and reduction/elimination over time) such that the reasonably foreseeable impacts will not cause unnecessary or undue degradation. In limited circumstances, compensatory mitigation can mitigate for impacts that would—in the absence of such compensatory mitigation—constitute unnecessary or undue degradation.

## **Chapter 7. Policy Limitations**

Limitations on the use of this policy include the following:

### **7.1. Previously Approved Land Use Authorizations**

For land use authorizations approved by the BLM prior to the issuance of this policy, this policy applies only to the extent consistent with the land use authorization (Manual Section 7.3). If a land use authorization is being renewed or amended, refer to Manual Section 7.2.

### **7.2. Renewal or Amendment of Land Use Authorizations**

The BLM may require additional mitigation measures, as appropriate and consistent with applicable law, during the renewal or amendment process for land use authorizations that the BLM approved prior to the issuance of this policy to address reasonably foreseeable impacts that have developed since the BLM authorized the public land use or that would cease but for the renewal or amendment of that authorization. Mitigation may not be required to address impacts from the original land use authorization that are no longer present or were adequately mitigated at the time the original land use authorization was approved.

### **7.3. Valid Existing Rights and Limited Discretion Decisions**

This policy applies to a different extent where the BLM's discretion to deny or regulate a proposed public land use is more limited, such as with mining plans of operations, existing leases, existing contracts, or statutorily mandated actions like legislated land exchanges or sales. Nonetheless, the application of mitigation may be appropriate. In these instances, the BLM will still identify and consider the effectiveness of appropriate mitigation measures in its NEPA analyses, including compensatory mitigation; however, any mitigation requirements in the decision should be consistent with the regulations governing mining plans of operations, the terms and conditions of existing leases and existing contracts, or the applicable legislation. For example, if an oil and gas lease has issued with standard lease terms and conditions, the BLM should ensure that any additional and appropriate mitigation measures required for a permit to drill are reasonable and consistent with those lease terms and conditions.

### **7.4. Land Use Authorizations on Split Estate Lands**

This policy applies to land use authorizations where the subsurface estate is owned by the United States, but the surface is owned by a different entity or person (i.e., split estate lands). The BLM generally has the authority to regulate the public land uses that involve federally owned mineral estate by requiring mitigation measures to address reasonably foreseeable impacts, including impacts to the surface estate. The BLM must consider the views of the surface owner(s) prior to its decision, consistent with applicable laws and policies.

If siting compensatory mitigation on split estate lands, the BLM will ensure that the willing landowner consents and that the site will receive adequate administration, durability, monitoring,

reporting, funding, and that BLM is provided reasonable access to the compensatory mitigation site(s) for oversight purposes for the duration of the impacts from the public land use.

### **7.5. Operations Authorized by the Mining Law of 1872**

The BLM should apply this mitigation policy on a case-by-case basis, consistent with the BLM's authority under the Mining Law, when authorizing operations under 43 CFR subparts 3809 or 3715. The BLM will follow the policy in this manual if the mitigation is necessary to comply with the performance standards in 43 CFR 3809.420, including paragraph (a)(4) (“You must take mitigation measures specified by BLM to protect public lands.”), or otherwise to prevent unnecessary or undue degradation.

The BLM may also identify additional mitigation measures to address potential impacts of approving the plan of operations that may not necessarily rise to the level of constituting unnecessary or undue degradation, including mitigation sited outside the plan of operations boundary. These mitigation measures may be incorporated in the plan of operations decision with the agreement of the operator, along with any mitigation proposed by the operator. Even though these mitigation measures would not be required to prevent unnecessary or undue degradation, they are enforceable if included in the plan of operations decision with the operator's consent.

All mitigation measures should receive appropriate environmental analysis. For additional guidance regarding types of mitigation that may be required for these types of operations, consult the BLM's Surface Management Handbook, H-3809-1.

### **7.6. Additional Mitigation Obligations**

Mitigation obligations identified through implementation of this policy may supplement, but do not replace, mitigation obligations that may be required by or result from formal consultation with other agencies or entities under statutes, such as the Endangered Species Act, National Historic Preservation Act, the Clean Water Act, or the Clean Air Act, regulations, or policies.

## Glossary of Terms

### -A-

*Adaptive management.* A system of management practices based on clearly identified outcomes and monitoring to determine whether management actions are meeting required outcomes; and, if not, facilitating management changes that will best ensure that outcomes are met or re-evaluated. Adaptive management recognizes that knowledge about natural resource systems is sometimes uncertain.

*Additionality.* A compensatory mitigation measure that is demonstrably new and would not have occurred without the compensatory mitigation measure.

*Advance compensatory mitigation measures.* Compensatory mitigation measures that achieve their defined outcome(s) in advance of impacts from a public land use.

*Appropriate.* Necessary for and effective at achieving the outcome and consistent with applicable law.

*Avoidance.* Avoiding the impact altogether by not taking a certain action or parts of an action (40 CFR 1508.1).

### -B-

*Baseline.* The pre-existing condition of a resource, at all relevant scales, which can be quantified by an appropriate metric(s). During environmental reviews, the baseline is considered the affected environment that exists absent the project's implementation and is used to compare predictions of the effects of the proposed action or a reasonable range of alternatives.

*Best management practices (BMPs).* State-of-the-art, efficient, appropriate, and practicable mitigation measures for avoiding, minimizing, rectifying, and reducing or eliminating impacts over time.

*BLM-proposed public land uses.* Public land uses proposed by the BLM to further its land management responsibilities under FLPMA (e.g., stewardship and timber sale contracts, development of facilities at Special Recreation Management Areas, land treatments).

*Broad-scale monitoring.* Monitoring conducted across the geographic extent (e.g., an ecoregion) of the focal resources, at a coarse resolution.

### -C-

*Characteristics.* The specific attributes of a resource that may be particularly unique, important, or essential for maintaining that resource (e.g., a specific habitat type or portion of a landscape that is essential to survival during a specific season of the year, or limiting in the lifecycle of the species, or essential for migration).

*Commensurate.* A compensatory mitigation obligation that is reasonably related and proportional to the reasonably foreseeable residual effects from a public land use that warrants compensatory mitigation.

*Compensatory mitigation.* Compensating for the remaining impacts after all appropriate and practicable avoidance and minimization measures have been applied, by replacing or providing substitute resources or environments through the restoration, establishment, enhancement, or preservation of resources and their values, services and functions (40 CFR 1508.1).

*Compensatory mitigation measure.* An action that results in the restoration, establishment, enhancement, and/or preservation of resources in order to address a residual effect to a resource from a public land use that warrants compensatory mitigation.

*Compensatory mitigation mechanism.* A type of an arrangement where resources are restored, established, enhanced, and/or preserved (all of which may lead to accrual of credits) for the purpose of compensating for residual effects to resources from public land uses that warrant mitigation (which qualify as accrual of debits), and may include mitigation banks, mitigation exchanges, mitigation funds (also known as in-lieu fee programs), and public land user-responsible compensatory mitigation measures.

*Compensatory mitigation site.* The areas where compensatory mitigation measures are located.

*Credit.* A unit of measurement representing the restoration, establishment, enhancement, and/or preservation of resources by a compensatory mitigation measure.

**-D-**

*Debit.* A unit of measurement representing an impact from a public land use.

*Decision document.* A formal agency decision, such as a Decision Record or Record of Decision associated with a NEPA document, or other program-specific decision documentation.

*Durability.* The maintenance of the effectiveness of a mitigation measure and/or a compensatory mitigation site for the duration of the impacts from the associated public land use, including resource, administrative, and financial considerations.

*Duration of the impact.* The time that resource impacts (both direct and indirect effects) from a public land use persist, even if this time period extends beyond the expiration of the public land use. The duration of some impacts may be in perpetuity.

**-E-**

*Effectiveness monitoring.* Verifying that mitigation is achieving the required outcomes.

*Effects.* The adverse direct, indirect, and cumulative impacts from a public land use; effects and impacts as used in this policy are synonymous.

*Enhancement.* An increase or improvement in quality, value, or extent.

*Establishment.* Introduction or re-introduction of a resource at a site.

*Externally proposed public land uses.* Public land uses proposed by a member of the public to the BLM for approval (via grants, leases, permits, licenses, and similar authorizations) and if authorized by the BLM would allow the public land user (i.e., a project applicant) to occupy, use, develop, or traverse BLM-managed surface or mineral estate.

-F-

*Fine-scale monitoring.* Monitoring conducted across the geographic extent of a mitigation measure and/or a compensatory mitigation site.

*Force majeure.* An event that cannot be reasonably anticipated or controlled, such as natural disasters outside of a predicted range of disturbance, etc.

-I-

*Impacts.* The adverse direct, indirect, and cumulative effects from a public land use; effects and impacts as used in this policy are synonymous.

*Important.* Resources that the BLM has determined to warrant special consideration, consistent with applicable law.

*Irreplaceable resources.* Those resources recognized through existing legal authorities as requiring particular protection from impacts and that because of their high value or function and unique character, cannot be restored or replaced.

-L-

*Land use authorizations.* A BLM approval for a public land use, which was proposed by a member of the public.

*Landscape.* A geographic area encompassing an interacting mosaic of ecosystems and human systems that is characterized by a set of common management concerns. The landscape is not defined by the size of the area, but rather by the interacting elements that are relevant and meaningful in a management context. The term “landscape” may include water-centric scales, such as watersheds, if they represent the appropriate landscape-scale.

-M-

*Mid-scale monitoring.* Similar to broad-scale monitoring, but conducted across a smaller geographic extent (e.g., a watershed) at a finer resolution.

*Minimization.* Minimizing impacts by limiting the degree or magnitude of the action and its implementation (40 CFR 1508.1).

*Mitigation.* Includes, avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and, compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.1).

*Mitigation bank.* An arrangement where actions to restore, establish, enhance, and/or preserve resources (all of which may lead to accrual of credits) are conducted in a defined geographic area(s) for the purpose of eventually compensating for residual effects to resources from public land uses (which qualify as accrual of debits). In general, a mitigation bank's responsible party sells compensatory mitigation credits to public land users, whose obligation to provide compensatory mitigation is then transferred to the mitigation bank's responsible party.

*Mitigation exchanges.* An arrangement where actions to restore, establish, enhance, and/or preserve resources (all of which may lead to accrual of credits) are conducted in a defined geographic area, by several willing and applicable landowners acting independently, for the purpose of eventually compensating for residual effects to resources from public land uses (which qualify as accrual of debits). In general, a mitigation exchange's responsible party facilitates the sales of compensatory mitigation credits from those landowners who accrued the credits to public land users, whose obligation to provide compensatory mitigation is then transferred to the mitigation exchange's responsible party.

*Mitigation fund (i.e., an in-lieu fee fund).* An arrangement where actions to restore, establish, enhance, and/or preserve resources (all of which may lead to accrual of credits) are conducted in a defined geographic area, by pooling and spending monetary funds from a single or multiple public land users, for the purpose of compensating for residual effects to resources from public land uses (which qualify as accrual of debits). In general, a mitigation fund's responsible party accepts funds for compensatory mitigation from public land users, whose obligation to provide compensatory mitigation is then transferred to the mitigation fund's responsible party.

*Mitigation hierarchy.* The process and order for identifying, considering, and, as appropriate, requiring mitigation, generally by first avoiding impacts, then minimizing, rectifying, and reducing or eliminating impacts over time, and then compensating for some or all of the remaining impacts (i.e., residual effects).

*Mitigation obligation.* The types of and amount of mitigation required by the BLM to mitigate reasonably foreseeable impacts to resources from a public land use.

*Mitigation standard.* A description of the extent to which mitigation will be applied in order to support achieving resource objectives (e.g., no net loss, net benefit). Mitigation standards may be identified in law, land use plans, and other decision documents supported by appropriate NEPA analysis.

*Mitigation strategy.* A document that identifies, evaluates, and communicates potential mitigation needs and mitigation measures in a geographic area, at relevant scales, well in advance of anticipated public land uses.

*Multiple use.* The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output. (FLPMA § 103 (c), 43 USC 1702(c)).

-N-

*National Conservation Lands.* A subset of BLM-managed lands that includes Wilderness Areas, Wilderness Study Areas, National Monuments, National Conservation Areas, National Scenic and Historic Trails, Wild and Scenic Rivers, and other similar conservation designations; also known as the National Landscape Conservation System (P. L. 111-11 § 2002).

*NEPA process/analysis.* Analysis prepared pursuant to the National Environmental Policy Act, such as a planning- or project-level environmental assessment (EA) or environmental impact statement (EIS).

*Net benefit.* When mitigation results in an improvement above baseline conditions.

*No net loss.* When mitigation results in no negative change to baseline conditions (e.g., fully offset or balanced).

-O-

*Objective.* A description of a desired outcome for a resource.

*Outcome.* A clearly defined and measurable result that reflects the desired condition of a resource.

*Output.* The type and/or amount of actions or work to benefit a resource.

-P-

*Performance standard.* Observable or measurable metrics that are used to determine if outcomes are met, and often include defined timeframes.

*Practicable.* Available and capable of being done after taking into consideration existing technology, logistics, and cost in light of a mitigation measure's beneficial value and the overall purpose, scope, and scale of a public land use.

*Preservation.* The removal of a threat to, or preventing the decline of, resources. Preservation may include the application of new protective designations on previously unprotected land or the relinquishment or restraint of a lawful use that adversely impacts resources.

*Public land.* Any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except (1) lands located on the Outer Continental Shelf; and (2) lands held for the benefit of Indians, Aleuts, and Eskimos. (FLPMA § 103 (e), 43 USC 1702(e)).

*Public land use.* The occupancy, use, development, or traversing of BLM-managed surface or mineral estate; may be BLM-proposed or externally proposed.

*Public land user.* A person who has an approved land use authorization.

*Public land user-responsible compensatory mitigation measures.* Actions to restore, establish, enhance, and/or preserve resources (all of which may lead to accrual of credits) by a public land user for the purpose of compensating for residual effects to resources from their public land uses (which qualify as accrual of debits); also referred to as permittee-responsible compensatory mitigation.

-R-

*Reasonably related.* To be demonstrably and rationally linked in terms of resource quantity, quality, and characteristics, as guided by the best available science.

*Rectification.* Rectifying the impact by repairing, rehabilitating, or restoring the affected environment (40 CFR 1508.1).

*Reduction or elimination over time.* Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the public land use (modified from 40 CFR 1508.1).

*Relevant scales.* The geographic area of interest for a resource or a land use, which may include areas as narrow as the site or as broad as a landscape.

*Residual effects.* Any adverse reasonably foreseeable effects that are expected to remain after consideration and application of the first four aspects in the mitigation hierarchy; also referred to as unavoidable impacts. Residual effects include those adverse impacts that will persist until the outcome of a mitigation measure is achieved at some point in the future.

*Resources.* See Resources (and their values, services, and/or functions).

*Resources (and their values, services, and/or functions).* Resources are natural, social, or cultural objects or qualities; resource values are the importance, worth, or usefulness of resources; resource services are the benefits people derive from resources; and resource functions are the physical, chemical, and/or biological processes that involve resources. (For the purposes of this policy, “resources” generally exclude leasable, salable, and locatable minerals.) For brevity, in this policy, the term “resources (and their values, services, and/or functions)” is also referred to in this manual simply as “resources.”

*Responsible party.* The entity accountable for fulfilling all aspects of mitigation obligations, including, but not limited to, ensuring the durability and effectiveness of mitigation measures, achieving mitigation measures’ outcomes, and complying with monitoring, adaptive management, and reporting requirements. The responsible party may be the public land user, the BLM, a third party, or a combination.

*Restoration.* The process of assisting the recovery of a resource (including its values, services, and/or functions) that has been degraded, damaged, or destroyed to the condition that would have existed if the resource had not been degraded, damaged, or destroyed.

*Reversal.* The loss of durability or effectiveness of a mitigation measure and/or a compensatory mitigation site.

-S-

*Scarce.* Resources that are not plentiful or abundant and may include resources that are experiencing a downward trend in condition.

*Sensitive.* Resources that are delicate and vulnerable to adverse change, such as resources that lack resilience to changing circumstances.

*Sustained yield.* The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use (FLPMA § 103 (h), 43 USC 1702(h)).

-T-

*Timeliness.* The lack of a time lag between the impact to the resources and the achievement of the outcomes of the associated mitigation measures.

-W-

*Written agreement.* A legal document signed by an authorized officer of the BLM and any other applicable parties that outlines the terms and conditions of an arrangement between parties.