

Environmental Assessment Best Practices

Report on best practices in Environmental
Assessments

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Foreword

This report is in response to the March 27, 2017 Secretarial Memorandum “Improving the Bureau of Land Management’s Planning and National Environmental Policy Act Process” and Secretarial Order 3355 of August 31, 2017. The purpose was to identify examples of environmental assessment (EA) best practices that would assist the field in meeting new page and time limit requirements. A team was assembled to review EAs that had been published to the BLM’s ePlanning NEPA Register. This report summarizes the identified streamlining techniques and provides examples.

While Secretarial Order 3355 did not set specific page and time limits, the August 6, 2018 Deputy Secretary memo on Additional Direction for Implementing SO 3355 for EAs cites the CEQ recommendation that EAs be approximately 10-15 pages and completed in 3 months or less (Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,037, Question and Answer 36a. (Mar. 23, 1981)). The August 6 memo also notes that in certain circumstances, EAs may need to exceed CEQ guidance and the Department’s normal practice. In these instances, the BLM should strive to complete EAs in 75 pages or less (excluding appendices), and within 180 days. Any EA exceeding the 75 page and 180-day threshold would need to be entered into the DOI NEPA Database and tracked.

Please note that this report and associated attachments consider EAs to fall under two categories: Simple and Complex. The two templates attached as supplements to this report reflect projects that either would be routine and non-controversial, i.e. “simple,” or those that are non-routine and controversial, i.e. “complex.” The “simple” EA format reflects a project that has two alternatives, including the no-action, and no more than three issues for analysis. The “complex” EA format reflects a project that has more than three issues for analysis and more than one action alternative.

Also note that the page numbers for the EA examples below correspond to specific examples of practices in the documents themselves, i.e. an appendix, a resource determination table, a section that tiers to a larger analysis, etc. The page numbers correspond to the pages in the uploaded document itself in the NEPA Register, and not necessarily with how pages are numbered in the EA (i.e. the cover page counts as page 1, even if the EA does not start page numbering until after the Table of Contents). How offices number the pages in their documents vary greatly, and using the page numbers in the uploaded document in the NEPA Register itself ensures consistency.

General Best Practices

- Do not prepare an EA when it is not necessary. Consider first whether a Determination of NEPA Adequacy (DNA), CX, or adoption of another office's or bureau's analysis will suffice.
- Ensure all necessary steps in the process are completed by going through a checklist for the EA process. The checklist should be referenced when developing an EA schedule.
- It is recommended that you focus the analysis using an issue-based approach, addressing only the relevant issues. This will save time and reduce page length. For example, if the sound from a project will only impact the nesting habitat of a specific bird, the specialist shouldn't look at breeding, overwintering, or other unaffected habitat, nor should the identified issue be "Birds" or "Wildlife," but rather the one affected species.
- Interdisciplinary team (IDT) field trips are beneficial for team members to share concerns, identify issues, and discuss the proposed action(s) on-site.
- Develop a narrow, defensible Purpose and Need that can help eliminate the creation of redundant or unnecessary alternatives.
- Apply the appropriate level of public involvement. Do not default to a public meeting. Consider the nature of the proposal, level of interest, and potential controversy to determine the appropriate level of public involvement (e.g. notification to prepare the EA, scoping, or EA comment periods).

- Use GIS to determine issues as a team. With the full ID team in one room, view the project data and overlay GIS data for resources, uses, and designations to determine which issues can be eliminated early in the project evaluation.
- Plan out the analysis. Before writing the affected environment section of the EA, identify the analysis methods including the impact indicator(s), analysis area, analytical assumptions, and data that will be used to conduct the analysis.
- Write the environmental consequences section before writing the affected environment. Once the analysis of impacts is written, it will be easier to narrow down the affected environment section to only the necessary information that establishes the context for the impacts discussion.

Page Length Best Practices

Issue-Based EAs

General Best Practices

Using an issue-based approach on EAs allows an IDT to focus on the actual issues to be analyzed in an EA, rather than an encyclopedic look at the affected environment and unaffected resources. The BLM NEPA Handbook notes on page 41 that “Issue analysis is necessary to determine significance,” and that “Entire resources cannot be issues by themselves, but concerns over how a resource may be affected by the proposal can be issues.” The BLM NEPA Handbook also encourages an IDT to phrase issues in the form of questions or statements, such as not saying ‘wildlife’ as a whole is impacted in a project, but rather saying “What would be the effect of the alternatives on sage grouse nesting?” (p. 41).

The use of a resource determination table allows an IDT to focus on the actual issues driving an analysis, and not create an encyclopedic document of the affected environment. A resource determination table is a list of all potential resources and issues encountered in the affected environment, and whether or not they should be carried forward for analysis in the document. The table can be a useful tool to the IDT

to focus on the actual issues, instead of the aforementioned encyclopedic look at the affected environment and unaffected resources. Such an issue-based approach is demonstrated in:

- Recreation EAs in the [Desert Splash 2013 EA from Lake Havasu Field Office](#) (pages 7-9); [Beaverhead Endurance Run EA from Salmon Field Office](#) (pages 3-6); and the [Sand Flats Campground B EA from the Moab Field Office](#) (pages 7-8);
- a Renewable Energy EA in the [Dry Lake Solar Energy Center at Harry Allen Project from Las Vegas Field Office](#) (pages 29-31);
- Lands and Realty EAs in the [Transport and Storage of Equipment and Materials for Camp Lonely EA from Arctic District Office](#) (pages 2-5) and the Demolition and Removal of a Radar Facility at Point Lonely, Alaska [Demolition and Removal of a Radar Facility at Point Lonely, Alaska, also from Arctic District Office](#) (pages 2-5). The resource determination tables in both documents also included a third column, listing the basis of determinations for the noted resource impacts, pointing to specific stipulations which already provided for adequate protection of the resources, and thus did not necessitate the issues needing to be carried forward for analysis. The stipulations are included in appendices in the documents, in Transport and Storage (pages 17-24) and in the Demolition and Removal (pages 21-43) EAs. In the case of the two above EAs, the project manager reported that by undertaking an issue-based approach from the start, the IDT was able to complete the EAs from initiation in ePlanning to a signed Decision Record and FONSI within 2 months.
- Riparian and wetland EAs demonstrating a use of a resource determination table include [the Pakoon Springs Non-Native control and Public Use Management EA from Grand Canyon-Parashant National Monument](#) (pages 16-18); the [South Fork Crab Creek Riparian and Wetland Enhancement EA from Spokane District Office](#) (pages 7-10), which included both the resource determination table and issues brought forward for analysis together in the same section; and the [Red Wash Dikes Expansion and Maintenance EA from Rawlins Field Office](#) (pages 4-5), which also uses the same approach as the South Fork EA.

- An example of a sage grouse habitat improvement EA is the [Greater Sage-Grouse Habitat Improvement Project and RMP EA from Burns District Office](#) (pages 9-12 for issues brought forward for analysis, pages 19-20 for a resource determination table).
- A forestry EA example of the use of a resource determination table is the [Godiva Rim Craftwood Harvest EA from Little Snake Field Office](#) (pages 10-12).
- Mining EA examples that use the resource determination to ensure an issue-based approach include the [American Colloid Company Amendment 11 EA](#) (pages 20-22), and the [Eagle Butte Sunstone Mines Plans of Operations EA from Lakeview District Office](#) (pages 26-27).

By Resource

The EAs below show additional issue-based techniques and approaches (besides the aforementioned resource determination table) used, separated by the resource on which the purpose and need focused.

Oil and Gas

Oil and Gas EAs demonstrating an issue based approach include the:

- [Aera Energy LLC's Five APDs EA from Bakersfield Field Office](#), focusing only on the elements of the affected environment actually affected by the alternatives (pages 10-15); and
- the [Potash Drilling Island and Development Area Programmatic EA](#), which looked at potential resource impacts from permitting any drilling action within a given area, thus allowing the office to look at all the potential impacts and thus routinely issue short EAs tiering to the programmatic analysis (pages 9-22).
- The [Blue Quail 7 Federal Com 1H EA from Carlsbad Field Office](#), which took the approach of not just focusing on only the impacted resources in the affected environment, but also combined the affected environment and no-action alternative into one section, saving page space by using this combined approach (pages 9-23).

- The [Silverstreak Overhead Electric Line EA, also from Carlsbad Field Office](#), also uses the combined affected environment/no-action approach (pages 10-27).
- The [August 2015 Oil and Gas Lease Sale from Fillmore Field Office](#) used an issue-based approach to significantly shorten the page count for a complex EA on a reasonably foreseeable development scenario (pages 18-35).
- The [Powder Keg Well Pad EA from Lander Field Office](#) used an issue-based approach, putting the table of issues not present or impacted into an appendix (page 18), and also combined the affected environment and environmental consequences section by resource (pages 10-15), creating a more focused and easy-to-read analysis.

Livestock and Grazing

- Both the [Upper Poison Spider Creek Allotment Lease Renewal](#) (page 7) and the [Hemingway Grazing Lease Renewal](#) (page 9), from Casper Field Office, provided strong rationale for not analyzing a No Grazing Alternative.

Renewable Energy

- The [Brady Hot Springs PoroTomo Project](#) and [Brady Hot Springs Well 15-12 Hydro-Stimulation EA](#), both from Humboldt Field Office, effectively use tables for both resource determinations (pages 15-18 in PoroTomo, page 13 in Well) and for pointing the reader to the sections on the actual issues raised from internal and external scoping (pages 7-8 in PoroTomo).

Forestry

- The [Elk Camel Forest Management EA from Butte Falls Field Office](#) (pages 18 to 21) and the [Gold Sardine Forest Management Project EA, also from Butte Falls Field Office](#) (pages 15 to 17) use an issue-based approach, and appendices to examine issues eliminated from analysis in more detail (see the Appendix section below); the [Long Tom Landscape Plan from Eugene District](#) (pages 4-7) also uses this approach.

Wildlife

- An example of a good Wildlife EA using an issued-based approach (pages 5-6) is the [Three Corners Guzzler EA from Vernal Field Office](#), which also uses a resource determination table (pages 21-26).

Mining

- While not using the resource determination table, the [Polyanna 8 Coal Lease Modification Application EA from the New Mexico State Office](#) did use an issue-based approach to explain why some issues were not carried forward for analysis in a space-saving table (pages 4-8).

Incorporation by Reference

General Best Practices

Please note that the documents reviewed by the team use the terms “incorporation by reference” and “tiering” interchangeably. It may be helpful for the field to better distinguish between the two in the future. Incorporation by reference is the incorporation of studies, research articles, and any other document, including a NEPA document, into an analysis. Tiering is the referencing of analysis in another, broader NEPA document that covers the area at issue in the present NEPA analysis, but perhaps not specifically enough to issue a decision. It allows the NEPA practitioner to refer to that already-completed NEPA analysis, rather than analyzing the same issue twice. One step in tiering is incorporation by reference, but they are not the same thing. See pages 25-28 of the BLM NEPA Handbook for further discussion. For consistency’s sake, this report is referring to how the documents themselves use the terms “incorporation by reference” and “tiering.”

Both incorporation by reference and tiering are important practices for the BLM to strengthen analysis and reduce its length; however, there are standards that must be met (BLM NEPA Handbook, p. 25). It requires the findings to be summarized. An EA that only directs the reader to page numbers of the documents to which it is tiered, or incorporates by reference, without a summary is not sufficient. An

example of proper tiering would be, for an EA tiering to an RMP, “The FEIS for the RMPs for Western Oregon described the effects of road construction on sediment delivery to streams and concluded that increases in sediment would increase less than 1.0% above current levels of fine sediment delivery over the next 10 years (Western Oregon Resource Management Plan, pages 401-408). This amount does not represent a substantial difference in comparison to the existing sediment delivery (Id., pages 405-406). That discussion is incorporated here by reference. Therefore, because this project was designed to comply with the management direction of the RMP and would incorporate relevant BMPs, the BLM does not anticipate that the Gold Sardine Project would exceed the anticipated effects accounted for in the FEIS.”

In general, to the extent that an existing analysis can stand in for another analysis, it is BLM policy to use it. This includes incorporating material from one project-level EA into another.

Incorporation by Reference by Resource

Oil and Gas

- The [August 2015 Oil and Gas Lease Sale from Fillmore Field Office](#) incorporated by reference several EAs and RMPs to meet CFR regulations on reducing redundant paperwork and analysis in the NEPA process (pages 9-10).
- The [Champlin 320 10 inch Natural Gas Pipeline EA from Rawlins Field Office](#) incorporated by reference the Continental Divide/Wamsutter II Natural Gas Project EIS, and the Rawlins Field Office RMP, as amended. The EA noted how the impacts under the proposed action had previously been addressed in the Continental Divide EIS, and how the RMP provided for natural gas exploration and development activities (pages 5-7, 9-10).
- The [Crazy Woman Exploratory Plan of Development from Buffalo Field Office](#) tiered to the Powder River Basin Oil and Gas Project FEIS and ROD (pages 1-2, 8, 9, 14, 17, 20, 23, 26-27, 28, 30-32, 34). Since the FEIS examined the environmental impacts of oil and gas development in the area as a

whole, the EA was able to utilize this more in-depth analysis to focus the EA on the site-specific impacts.

Renewable Energy

- The Air Quality section of the [Dry Lake Solar Energy Center at Harry Allen Project](#) (pages 36-37) incorporates by reference a thorough air quality analysis in the general area, the Final Solar Energy Development in Six Southwestern States Programmatic EIS. The document also has a good section on summarizing the other documents it incorporates by reference, including some of the issues previously analyzed (pages 10-11).

Forestry

- The [Gold Sardine Forest Management Project EA from Butte Falls Field Office](#) (pages 13-15) incorporated by reference the relevant RMPs, recovery plans, and local county plans, showing how both the document was in conformance with the various plans, and also how the various planning documents and recovery plans supported the proposed action for the EA.

Mining

- The [American Colloid Company Amendment 11 EA from Miles City Field Office](#) (page 9) incorporated by reference a previous environmental assessment on another amendment from the same applicant in the same general area. This enabled the office to incorporate by reference several of the resource impacts from the previous EA and focus on the site-specific impacts (pages 22-38).
- The [Eagle Butte Sunstone Mines Plans of Operation EA from Lakeview District Office](#) (page 11) incorporates by reference the Lakeview Proposed RMP and Final EIS, avoiding an encyclopedic summary of the affected environment, and instead focusing on the actual impacted resources.

Use of Published Reports and Studies

A general best practice for referencing published reports and studies, especially if they may be applicable to many BLM offices, is to upload the report/study to ePlanning, so that other offices can easily access and reference them. The socioeconomics program established this helpful practice.

Incorporation by reference of published reports and studies is fairly straightforward. Two examples are the [Potash Drilling Island and Development Area Programmatic EA](#) (pages 10-14) and the [Blue Quail 7 Federal Com 1H EA](#) (pages 9-14), from Carlsbad Field Office, which incorporated by reference the Air Quality Technical Report for BLM Minerals Development in New Mexico, Kansas, Oklahoma, and Texas report. The EAs summarized the technical information from the report that was applicable to the immediate project area. By referencing the technical report, the documents were able to focus on the relevant impacts to the project area.

Tiering

General Best Practice

Unlike incorporation by reference, tiering utilizes only higher-level NEPA such as an RMP, EIS, or Programmatic EIS or EA; one cannot tier to studies, articles, or reports.

If the RMP or RMP-A provides specific design features and mitigation, an office can tier its EAs to the design features and mitigation. The Carlsbad Field Office employed such an approach for their oil and gas EAs, specifically:

- the [Blue Quail 7 Federal Com 1H](#), (pages 4-5, 20,) [Potash Drilling Island and Developmental Area Programmatic](#), (pages 6, 20-22, 27, 41, 50) and the [Silver Streak 13 Federal Com #2H](#) projects (pages 3-4) . These EAs tiered to the 1997 Carlsbad Approved Resource Management Plan Amendment and the 2008 Special Status Species Approved Resource Management Plan Amendment.

By Resource

Oil and Gas

- The [Champlin 320 10 inch Natural Gas Pipeline EA from Rawlins Field Office](#) tiered to the Continental Divide Natural Gas Project EIS by demonstrating that the EIS had already analyzed potential impacts with natural gas development within the project area (page 6).

- The [August 2015 Oil and Gas Lease Sale from Fillmore Field Office](#) tiered to RMPs to meet CFR regulations on reducing redundant paperwork and analysis in the NEPA process (pages 9-10).
- The [Champlin 320 10 inch Natural Gas Pipeline EA from Rawlins Field Office](#) tiered to and incorporated by reference the Continental Divide/Wamsutter II Natural Gas Project EIS, and the Rawlins Field Office RMP, as amended. The EA noted how the impacts under the proposed action had previously been addressed in the Continental Divide EIS, and how the RMP provided for natural gas exploration and development activities (pages 5-7, 9-10).
- The [Crazy Woman Exploratory Plan of Development from Buffalo Field Office](#) both tiered to and incorporated by reference the Powder River Basin Oil and Gas Project FEIS and ROD (pages 1-2, 8, 9, 14, 17, 20, 23, 26-27, 28, 30-32, 34). Since the FEIS examined the environmental impacts of oil and gas development in the area as a whole, the EA was able to utilize this more in-depth analysis to focus the EA on the site-specific impacts.

Lands and Realty

Both the [Demolition and Removal of a Radar Facility at Point Lonely, Alaska](#) (pages 2, 5-6, 15) and the [Transport and Storage of Equipment and Materials for Point Lonely](#) (pages 1-2, 5, 12), from Arctic District Office, effectively tiered to the National Petroleum Reserve-Alaska (NPR-A) Integrated Activity Plan (IAP) EIS. The two EAs tiered to the affected environment analysis, permit stipulations, and resource issue impacts in the NPR-A IAP. By effectively tiering to the larger analysis, the two EAs were either able to greatly reduce the list of issues requiring analysis.

Adoption

General Best Practices

When the same actions are occurring in the same affected environment across federal jurisdictional boundaries, it can be advantageous for the BLM to adopt another agency's analysis if they have developed a thorough and legally defensible Environmental Assessment. Adoption of another agency's NEPA analysis allows the BLM to issue a Decision Record based on it (see pages 31-32 of the BLM NEPA Handbook). A good example of such a Decision Record is the Baker Field Office's [East Face Vegetation Management Project](#) (entire project). Rather than duplicate efforts, the Baker Field Office was able to adopt Forest Service analysis and issue its own Decision Record.

Appendices

General Best Practices

Placing lengthy stipulations, maps, photos, and even the resource determination table in the Appendix helps save space in the main document for the actual analysis.

- Examples include:
 - [Desert Splash 2013 EA from Lake Havasu Field Office](#) (pages 15-22) (stipulations, maps, photos);
 - [Sand Flats Campground B EA from Moab Field Office](#) (pages 7-9) (resource determination table, project design figure); and
- [Murdoch Allotment #17741 EA from Worland Field Office](#) Appendix B (analysis of grazing suitability);
- [Hemingway Grazing Lease Renewal EA, also from Casper Field Office](#) Appendix A (pages 39-44, table analyzing applicability of required design features in Priority Habitat Management Areas); and

- [August 2015 Oil and Gas Lease Sale from Fillmore Field Office](#) (pages 43-72) (the oil and gas lease sale list, maps, checklist of issues not present or not impacted, and response to comments).

Time Limit Best Practices

ePlanning

General Practices to use ePlanning to shorten both project schedules and page lengths

- Conduct pre-work. Certain tasks inform the NEPA process and can occur in advance, such as identifying the purpose and need, beginning consultation and coordination, and conducting surveys, to name a few.
- Use the NEPA Register to locate examples of EAs in other districts and states that are similar to projects the lead office is initiating. By noting issues and resources of concern, the lead office's internal scoping process can be more complete, and lead to improved issue-based NEPA by better defining the scope of analysis before initiating public outreach activities.
- Use the public outreach tools in ePlanning to provide notice to known interested parties as soon as possible on a project.
- Shorten EA content by using weblinks to incorporate by reference and refer to analyses to which the document is tiered. Use a hotlink to connect to pertinent documents, reports, maps, etc. under the "Documents" tab of the project page/site in the NEPA Register.
- Devise a system to keep track of previous NEPA analysis an office has completed. This practice would especially be useful for offices where there is high staff turnover, and knowledge of previous NEPA analysis done is not always transferred in a timely manner to new staff. Organize past EAs and EISs geospatially within a GIS workflow to facilitate assessing initial issue identification for a federal

action. For example, a field office could view a map of a past analysis completed in a given area that analyzed the same specific issue.

- When multiple parties must review the EA prior to a public comment period of signing of the FONSI (e.g. field and state offices, cooperating agencies), making the reviews concurrent rather than sequential saves time.