

ORGANIZING TRAILS: PROVEN METHODS FOR ORGANIZING THE COMPLEXITIES OF NATIONAL HISTORIC TRAIL IMPACT ANALYSIS

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Abstract.—National Historic Trail management and planning is a complex undertaking, and completing National Environmental Policy Act-related impact analyses for these trails is particularly challenging. With the involvement of multiple agencies and planning initiatives, developing an understanding of the regulatory and planning framework alone can be an arduous undertaking. Adding to the complexity, the trails involve multiple, overlapping resources with a wide variety of potential data sources that may or may not be available. However, by first organizing information into several key categories and then establishing impact thresholds that directly relate to these categories, National Historic Trail analysis can be successfully streamlined to focus on key factors. This paper introduces a proven approach to organizing and analyzing information to assess impacts to National Historic Trails, providing a concise and direct correlation between available data, analysis methods, and determinations of consistency with planning documents.

INTRODUCTION

Considering the linear nature of National Historic Trails (NHT), it is no surprise that analyzing National Environmental Policy Act-related impacts to these trails has become common for projects proposed across the country. This is perhaps most evident in the western United States where the NHT system includes a web of trails that commemorate western exploration, communication, emigration, and historic tragedies. As the National Park Service's National Trails Map illustrates, these trails often extend for hundreds of miles and cross a wide variety of land ownership types and management responsibilities. Managing and maintaining the trails involves various planning initiatives and resources, some of which extend far beyond the trails themselves.

This paper describes a method for organizing information about trails and associated resources and using this information to develop trail impact thresholds for proposed projects. This approach was used successfully to conduct recent impact analyses for projects such as the Riley Ridge to Natrona Pipeline project and the Boardman to Hemingway 500 kv Transmission Line project. The flow chart in Figure 1 illustrates how the regulatory and planning framework is related to data organization, and how this information relates to establishing impact thresholds, each of which are described below.

REGULATORY AND PLANNING FRAMEWORK

In order to understand some of the key requirements and establish a methodology for organizing a trail impact analysis, we need to understand the regulatory and planning framework. The most directly applicable regulation is the 1968 National Trails System Act (NTSA) which was established to provide for the ever-increasing outdoor recreation needs of the expanding U.S. population. The purpose of the NTSA is to promote preservation of, public access to, travel within, and enjoyment and appreciation of outdoor areas and historic resources across the Nation.

Importantly in the realm of impact analysis, the NTSA allows for other uses along the trails but only if they do not “substantially interfere” with the nature and purposes of the trails (National Trails System Act 1993). For NHTs specifically, the NTSA states that their purpose includes identification of the historic route, associated remnants, and associated artifacts for public use and enjoyment, and that these components require Federal protection. The NTSA also established that administration and management of National Trails would be split between the National Park Service (NPS), USDA Forest Service (FS), and Bureau of Land Management (BLM).

In addition to the requirements of the NTSA, both the BLM and FS operate under multiple-use mandates that play a role in the management of NHTs. The Federal Land Policy and Management Act of 1976, otherwise

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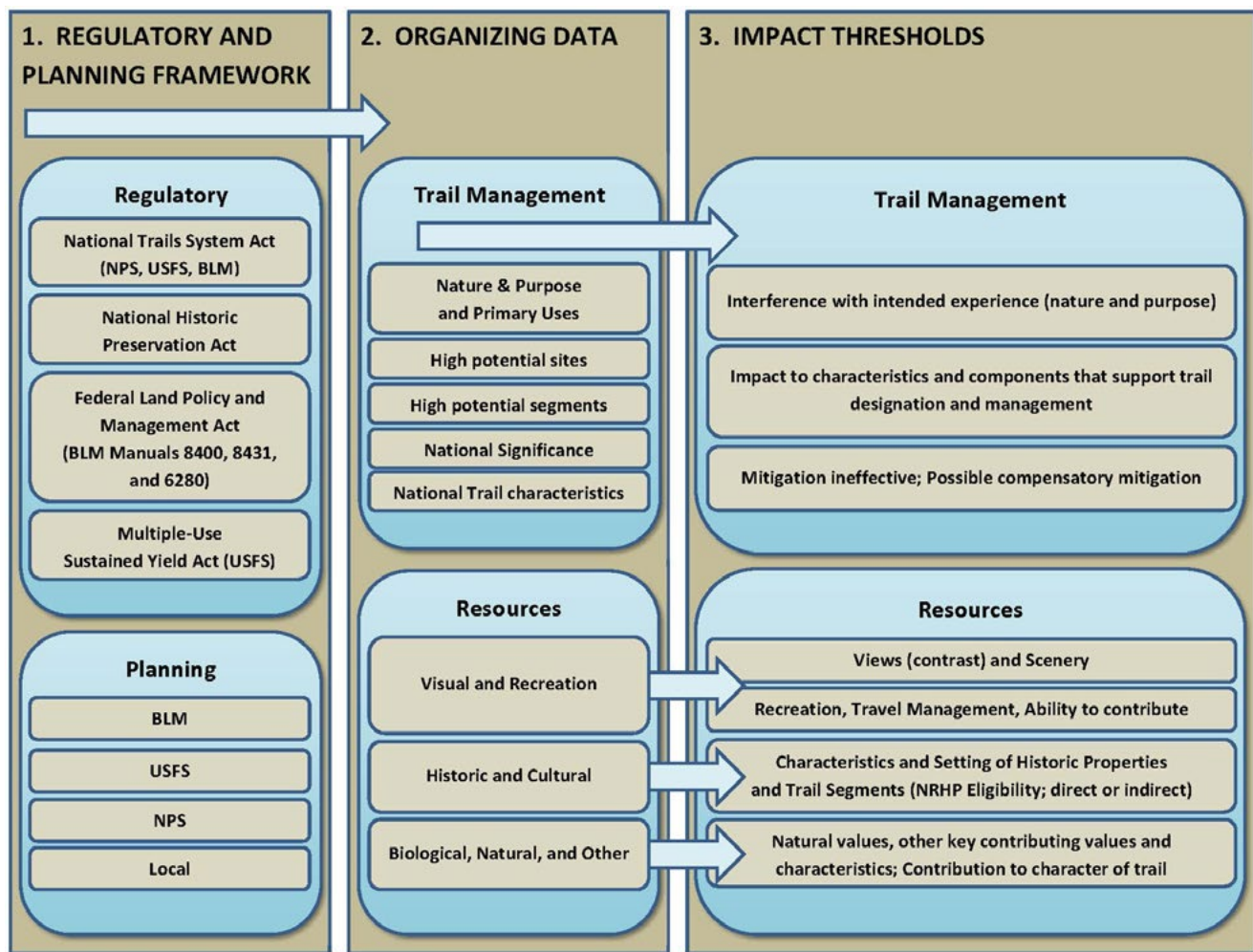


Figure 1.—National Historic Trails analysis flow chart.

known as the BLM Organic Act, established the BLM's multiple-use mandate. It defines the agency's responsibility to manage public lands and associated resources to meet the needs of the American people (Bureau of Land Management 2016). The FS's multiple-use mandate was established by the 1960 Multiple-Use Sustained-Yield Act which requires the FS to manage its natural and recreational resources in a manner that best meets the needs of the American people (Multiple-use Sustained-yield Act 1960).

Because NHT analyses include inventory and assessment of historic sites and trail segments, these efforts also overlap with Section 106 of the National Historic Preservation Act (NHPA). Established in 1966, Section 106 requires that analyses account for potential impacts to historic properties (including sites and trail segments) that are listed on (or are eligible for listing on) the National Register of Historic Places (NRHP) (National Park Service 2012).

In response to these regulations, numerous Federal and local planning documents have been developed. With regard to NHTs, this includes comprehensive management and use plans, corridor management plans, resource management plans, and general management plans developed by the BLM, FS, and/or NPS. Many local planning efforts also address NHTs including comprehensive plans for counties and municipalities near the trails.

In addition to regulations and planning documents, perhaps the most influential guidance for NHT impact analysis is the BLM's Manual 6280, Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation. This manual draws from the language and components of NHT-related regulations and provides a basic format for organizing data, regardless of land ownership and management boundaries.

INFORMATION AND DATA ORGANIZATION

The sheer amount of management and resource information can be overwhelming during the trail impact analysis process. However, organizing this information into four basic categories has proven to be an effective approach on recent, successful impact analyses. The four categories are: 1) visual and recreation resources, 2) historic and cultural resources, 3) biological, natural, and other resources, and 4) trail management (Fig. 1). The first three categories follow the basic format in BLM Manual 6280 (Bureau of Land Management 2012) and the fourth category is a catch-all for information about past or potential future management activities.

As a direct reflection of the regulatory and planning framework, trail management is perhaps the most complex of the categories. It encompasses the general requirements of National and Federal regulations; Federal, State, and local planning documents; and the direction provided in associated manuals, plans, and ordinances. Although trail management relates directly to NHT-associated resources, it is generally broader in focus and relates to the overall challenges of trail administration. This includes identifying impacts to the trails' nature and purpose, primary uses, and overall National significance. Federal agencies' abilities to manage the trails for public use and enjoyment, interpretation, education, appreciation, and vicarious experiences must also be taken into account. In addition, planning documents may include more specific and restrictive guidance such as exclusion areas, distance and viewing restrictions, corridor crossing limitations, and overlay zones.

With regard to NHTs, discussions regarding visual resources must include both impacts to the scenic qualities of the trails and impacts to viewers using the trails or associated trail features. Impacts to visual resources include both the degree of change and the context of the change in relation to the trails' periods of historic significance. Visual resource data may come from a variety of sources including existing or concurrent visual resource inventories and analyses (Schwartz et al. 2012). In general, this data should focus on key NHT-related viewing platforms (e.g., trail alignments, interpretive sites, and auto tour routes) and information regarding the landscape character and scenic quality surrounding the trails. Ideally, this

information would be found within existing NHT inventory documents such as those required by BLM Manual 6280. However, these types of documents may not yet exist for some trails or trail segments. For example, because no NHT inventory had been completed for the Oregon Trail in eastern Oregon and western Idaho, recent efforts on the Boardman to Hemingway project required a separate inventory to ensure that basic data was available for the associated Final Environmental Impact Statement (FEIS).

Historic and cultural resources are associated with Section 106 of the NHPA and data about them can be collected from existing inventories and/or concurrent inventories and analyses. These data should center on contributing trail segments and cultural sites that are directly associated with the trail. The latter typically includes sites from within the trail's historic period of significance but occasionally includes historic monuments that were constructed later. Impacts to cultural resources can also include direct impacts to associated sites or indirect impacts to the integrity of the sites' historic visual settings (Johnson and Leonard 2013).

Biological, natural, and other resources could include features such as historic springs, other water sources, or historically characteristic vegetation communities. This category could also include resources that might have significant relevance for a particular trail but do not fit in the previously discussed categories. Data on these resources can be gathered from pre-existing and/or concurrent inventories and analyses.

Gathering and effectively organizing data about these resources and trail management activities are critical steps that create the framework and structure for establishing impact thresholds and simplify the overall NHT impact analysis process.

IMPACT THRESHOLD ESTABLISHMENT

Other local and Federal planning initiatives may influence additional thresholds if the proposed project crosses avoidance areas or violates other planning-related restrictions. Consistency with planning directives can be achieved by clearly and consistently tying thresholds to planning documents for a project area.

Thresholds for NHT-related visual and recreational resources are based on several factors beginning

Table 1.—Key issues and impact threshold examples

Categories	Key issues	Examples of high impact threshold
Trail management	Degree of interference with nature and purpose and primary uses. Degree of impact to characteristics and components that support trail designation and management (high potential sites, high potential segments, national significance, National Trail characteristics). If mitigations are ineffective, compensatory mitigation may be necessary. Must include alternatives that avoid adverse impacts (BLM).	Project would substantially interfere with the intended experience of the trail, as expressed in the trail's nature and purpose and primary uses. Project would adversely affect the characteristics and components that supported the trail's designation and the agency's ability to manage the trail for the designated purposes. Impacts would not be able to be effectively mitigated, requiring consideration of additional, compensatory mitigation.
Visual and recreation	Degree of impacts to viewers Recreational Residential Travel routes Degree of impacts to scenery Degree of impact to recreational uses and access	Contrast would demand attention and dominate views from trail components (and would be incongruent with historic characteristics). Project would be highly visible and views long in duration. Project would visually dominate high-quality or rare scenery where setting is defining factor for high potential route segments or as seen from historic properties and/or interpretive areas. Intact resource values, including recreation and National Trail-related travel management opportunities and values would be substantially compromised by Project. Values would no longer contribute to trail character.
Historic and cultural	Impacts to NRHP status/eligibility Direct impacts Indirect impacts (visual, noise, scent)	Characteristics and setting of trail-associated historic properties located in the trail corridor and trail segments would be severely modified to the extent that the characteristics and setting would no longer contribute to the NRHP status/eligibility of the trail (could include direct impacts on historic properties, or indirect impacts on the setting/feeling/association).
Biological, natural, and other	Impacts to NRHP status/eligibility Direct impacts Indirect impacts (visual, noise, scent)	Biological, natural, and other values, including any key contributing NHT values and characteristics, would be substantially compromised by the Project (e.g., a riparian area adjacent to a route segment follows what would be cleared for access roads) to the extent that values would no longer contribute to character of trail.

with the degree to which a project would attract the attention of trail users. The analysis must take into account the overall experience of the viewers such as the length of time viewed, viewer orientation, and visibility conditions. The degree to which a project would dominate or substantially change rare or unique scenic quality surrounding the trail must also be considered.

With respect to recreational resources, thresholds are bound to a project's potential effect on recreational opportunities and values along various portions of the trail. Access to recreational opportunities can include both informal trail features and developed trail facilities. The public can be highly sensitive to the condition of these features and facilities, but building or maintaining them can also conflict with other public interests. An example is the National Historic Oregon Trail Interpretive Center (NHOTIC), which was considered in the Boardman to Hemingway project FEIS. During the impact assessment process, public comments were fairly evenly divided between individuals who wanted the project to be closer to the NHOTIC to avoid greater biological impacts and those who wanted it farther away.

Thresholds for historic and cultural resources focus on how much the project would modify the characteristics and visual settings of historic properties, and the extent to which the project could affect the NRHP eligibility of the trail. Again, these thresholds apply to both direct and indirect impacts. Based on experiences with the Riley Ridge to Natrona Pipeline project and others, the degree of historic setting intactness can vary widely throughout project areas. Because of patchy development patterns in the western United States, landscapes are often not fully intact unless views are limited by nearby landforms or vegetation. Different levels of intactness must be taken into consideration when describing potential impacts to historic and cultural settings.

With respect to biological, natural, and other resources, the thresholds should relate to key contributing values and characteristics that could or would be compromised, and the degree to which they would no longer contribute to the character of the trail. These thresholds, in addition to those for visual and recreational resources, historic and cultural resources, and trail management elements, provide resource analysts and reviewing agencies with clear direction on how to evaluate a project's potential impacts, and how compatible those impacts are with existing planning direction (Table 1).

CONCLUSION

Considering how complex NHT assessments can be, it is critical to establish basic data organization guidelines and impact thresholds early in the assessment process. The approaches described in this paper have been successfully implemented during recent large-scale linear projects. The intent in describing these concepts is to provide an example of what has worked and to generate additional ideas for improving the NHT impact analysis process in the future.

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