



***Achieving Compliance with the Executive Order  
“Minimization Criteria” for  
Off-Road Vehicle Use on Federal Public Lands:***

***Background, Case Studies, and  
Recommendations***

***The Wilderness Society***

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## Executive Summary

In response to the growing use of dirt bikes, snowmobiles, all-terrain vehicles, and other off-road vehicles (ORVs)<sup>1</sup> on federal public lands and corresponding environmental damage, social conflicts, and public safety concerns, Presidents Nixon and Carter issued Executive Orders 11644 and 11989 in 1972 and 1977, respectively, requiring federal land management agencies to plan for ORV use based on protecting resources and other recreational uses. Specifically, the executive orders require that areas and trails designated for ORV use be located to *minimize*: damage to soil, watershed, vegetation, and other public lands resources; harassment of wildlife and significant disruption of wildlife habitat; and conflicts between ORV use and other existing or proposed recreational uses. While the Bureau of Land Management (BLM) and U.S. Forest Service travel management regulations echo the executive order “minimization criteria,” they do not provide guidance to field managers on how to apply the criteria.

It has been over four decades since Presidents Nixon and Carter obligated federal agencies to designate a system of ORV areas and trails that minimize impacts. Yet the agencies consistently struggle to satisfy that obligation, resulting in unnecessary damage to water, fish, wildlife, and the experience of other visitors. This is evidenced by a series of court rulings finding agency failures to comply with the minimization criteria. Those cases confirm the agencies’ substantive obligation to meaningfully apply and implement – not just identify or consider – the minimization criteria when designating each area or trail, and to show in the record how they did so.

In this report, we provide the policy framework for designating ORV trails and areas on federal lands, along with a series of recommendations based on recent case law and ten case studies from the Forest Service, BLM, and National Park Service that demonstrate both agency failures to comply with the executive order minimization criteria and good planning practices that could be incorporated into a model for application of the criteria.

We recommend that agencies issue guidance to clarify their obligations under the Executive Orders. Specifically, when designating ORV trails and areas, agencies must:

- (1) Actually *minimize* impacts – not just identify or consider them – and show how they did so in the administrative record; and
- (2) Apply a transparent and common-sense methodology for meaningful application of the minimization criteria that provides opportunities for public participation, incorporates the best available scientific information and best management practices, addresses site-specific and larger-scale impacts, and accounts for monitoring and enforcement needs and available resources.

The substantive obligation to minimize impacts applies to both ORV area allocations (typically made in land management plans) and specific route designations (often made in travel plans). Guidance should

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<sup>1</sup> The Bureau of Land Management generally uses the term “off-highway vehicle” or “OHV,” which is synonymous with off-road vehicle. For consistency across agencies and with the governing executive orders, this white paper uses the term ORV.

also clarify that agency attempts to *mitigate* impacts associated with an existing ORV system are insufficient to fully satisfy the executive order minimization criteria, which requires areas and trails to be *located* to minimize impacts in the first instance.

There is an immediate need for agency leadership and direction to assist field managers with proper implementation of the executive order minimization criteria and to provide necessary and appropriate protection for our nation's natural and cultural resources, ensure rewarding and safe recreational experiences for all, and cure legal vulnerabilities. Guidance will also assist with implementation of President Obama's policy on mitigating impacts on natural resources, which complements and reinforces the minimization criteria by requiring agencies to prioritize avoidance and minimization of harmful effects to land, water, wildlife, and other ecological resources. The call for immediate action is acute given that the Forest Service is embarking on comprehensive winter-time travel management planning and the BLM hopes to complete hundreds of travel plans over the next five years.

Our hope is that this white paper serves to initiate a needed dialogue within and between land management agencies that will result in enhanced agency commitment to and application of the executive order minimization criteria. The Wilderness Society stands ready to collaborate to advance these objectives.

## Overview

Presidents Nixon and Carter issued Executive Orders 11644 and 11989 in 1972 and 1977, respectively, requiring federal land management agencies to minimize environmental impacts and conflicts associated with the use of dirt bikes, snowmobiles, all-terrain vehicles, and other off-road vehicles (ORVs)<sup>2</sup> on federal public lands. Forty years later, the agencies continue to struggle to comply with the executive order “minimization criteria,” as evidenced by a series of court rulings finding agency failures to satisfy those criteria.

This white paper provides: (1) pertinent background information on ORV impacts and the agencies’ legal obligations; (2) selected case studies from the U.S. Forest Service, Bureau of Land Management (BLM), and National Park Service (NPS) highlighting lessons-learned from instances where the agencies have failed to satisfy their duty to minimize impacts associated with ORV use, as well as instances of successful planning practices, approaches, or outcomes that could be incorporated into a model for application of the minimization criteria; and (3) recommendations for ensuring effective compliance in the future, including suggestions for crafting clarifying guidance on proper application of the minimization criteria.

It is important that the agencies address this issue as soon as possible to provide necessary and appropriate protection for our nation’s natural and cultural resources, ensure rewarding and safe recreational experiences for all, and cure legal vulnerabilities. The call for immediate action is acute given that the Forest Service is embarking on comprehensive winter-time travel management planning and the BLM hopes to complete hundreds of travel plans over the next five years.

The Wilderness Society is committed to identifying and implementing ways to advance land management strategies to better protect and inspire Americans to care for our public lands. With this white paper, we hope to initiate a needed dialogue within and between land management agencies that will result in enhanced agency commitment to and application of the executive order minimization criteria. As always, we stand ready to collaborate to advance these objectives.

## I. Background

### A. Impacts from ORV use

While ORVs can provide important access and recreational enjoyment, over four decades of research has documented significant adverse environmental and social impacts associated with their use on the public lands. As the Council on Environmental Quality recognized in a [1979 Report](#), “ORVs have damaged every kind of ecosystem found in the United States,” and “[f]ederal lands have borne a disproportionate share of the damage.”

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<sup>2</sup> The Bureau of Land Management generally uses the term “off-highway vehicle” or “OHV,” which is synonymous with off-road vehicle. For consistency across agencies and with the governing executive orders, this white paper uses the term ORV.

Impacts include physical resource damage such as soil and snow compaction, erosion, crushing of vegetation, spread of invasive species, stream sedimentation, and air pollution. ORV use also degrades and fragments wildlife habitat, diminishing resilience to climate change, while ORV noise, dust, emissions, and the presence of humans disrupt wildlife processes such as breeding, feeding, migration, and nesting. Damage to cultural and archaeological resources, including unintentional crushing of artifacts and increased vandalism and looting, is also associated with ORV use. Finally, ORV use poses public safety and user conflict concerns. In particular, the noise, dust, fumes, and physical resource damage associated with ORV use can seriously impair the experience of the majority of public lands visitors engaging in non-motorized forms of recreation.<sup>3</sup>

Advancements in ORV technology and changes in use patterns have exacerbated these impacts. In addition, climate change is making public lands resources increasingly vulnerable to ORV-related impacts, with changing and in many cases more intense storm events, altered wildlife habitat and migration patterns, and other stressors intensifying resource damage.

## **B. Legal obligation to minimize impacts and conflicts with other uses**

In response to the growing use of ORVs and corresponding environmental damage and conflict, Presidents Nixon and Carter issued executive orders to “establish policies and provide for procedures that will ensure that the use of [ORVs] on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.”<sup>4</sup> To that end, the orders require federal agencies to plan for motorized use based on protecting resources and other recreational uses.<sup>5</sup> When designating areas or trails available for ORV use, agencies must locate them to:

- (1) minimize damage to soil, watershed, vegetation, or other resources of the public lands;
- (2) minimize harassment of wildlife or significant disruption of wildlife habitats; and

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<sup>3</sup> For a selection of scientific studies, literature reviews, and other publications documenting these impacts, *see, e.g., S.C. Trombulak & C.A. Frissel*, Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities, *Conservation Biology* 14:18-30 (2000), available at <http://onlinelibrary.wiley.com/doi/10.1046/j.1523-1739.2000.99084.x/pdf>; *The Wilderness Society, Science and Policy Brief, Habitat Fragmentation from Roads: Travel Planning Methods to Safeguard Bureau of Land Management Lands* (May 2006, No. 2), available at <https://partners.tws.org/wildscience/Publications1/Habitat%20Fragmentation%20from%20Roads.pdf>; *U.S. Government Accountability Office, GAO-09-509, Enhanced Planning Could Assist Agencies in Managing Increased Use of Off-Highway Vehicles* (2009), available at <http://www.gao.gov/assets/300/291861.pdf>; *T. Adam Switalski & Allison Jones*, Off-road Vehicle Best Management Practices for Forestlands: A Review of Scientific Literature and Guidance for Managers, *Journal of Conservation Planning* 8:12-24 (2012), available at [http://www.journalconsplanning.org/2012/JCP\\_v8\\_2\\_Switalski.pdf](http://www.journalconsplanning.org/2012/JCP_v8_2_Switalski.pdf); *Adam Switalski*, *Snowmobile Best Management Practices for Forest Service Travel Planning: A Comprehensive Literature Review and Recommendations for Management* (2014), available at <http://winterwildlands.org/wp-content/uploads/2015/02/BMP-Report.pdf>; Saul L. Hedquist *et al.*, Public Lands and Cultural Resource Protection: A Case Study of Unauthorized Damage to Archaeological Sites on the Tonto National Forest, Arizona, *Advances in Archaeological Practice* 2(4): 298-310 (2014).

<sup>4</sup> Exec. Order No. 11644, § 1, 37 Fed. Reg. 2877 (Feb. 8, 1972), *as amended by* Exec. Order No. 11989, 42 Fed. Reg. 26,959 (May 24, 1977).

<sup>5</sup> *Id.* § 3.

- (3) minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands.<sup>6</sup>

The BLM and Forest Service travel management regulations echo these “minimization criteria” (although they do not provide guidance to field managers on how to apply the criteria).<sup>7</sup> The plain language of the executive orders and agency regulations make clear that the criteria apply *both* to designations of areas available for cross-country ORV travel and to designations of specific routes open to ORV use.<sup>8</sup>

Despite their long-standing legal obligation, the Forest Service, BLM, and NPS have struggled to properly apply and implement the minimization criteria in their ORV planning decisions, prompting a suite of federal court cases. Since 2009, federal courts have repeatedly invalidated travel management decisions for agency failure to correctly apply the criteria to minimize resource damage and conflicts with other recreational uses when designating ORV areas or trails:

- *Center for Biological Diversity v. BLM*, 746 F. Supp. 2d 1055, 1071-81 (N.D. Cal. 2009) (record provided no indication that BLM considered or applied the minimization criteria when designating ORV routes in the West Mojave Desert).
- *Idaho Conservation League v. Guzman*, 766 F. Supp. 2d 1056, 1071-74 (D. Idaho 2011) (record did not reflect whether or how the Forest Service applied the minimization criteria in its travel plan for the Salmon-Challis National Forest).
- *Defenders of Wildlife v. Salazar*, 877 F. Supp. 2d 1271, 1304 (M.D. Fla. 2012) (NPS failed to articulate or document whether or how it applied the minimization criteria to ORV route designations in Big Cypress Preserve).
- *Central Sierra Environmental Resource Center v. U.S. Forest Service*, 916 F. Supp. 2d 1078, 1094-98 (E.D. Cal. 2013) (Forest Service failed to show that it actually aimed to minimize environmental damage when designating ORV routes in the Stanislaus National Forest).
- *The Wilderness Society v. U.S. Forest Service*, No. CV08-363-E-EJL, 2013 U.S. Dist. LEXIS 153036, at \*22-32 (D. Idaho Oct. 22, 2013) (remanding the travel plan for a portion of the Sawtooth National Forest where the agency relied on an unsupported conclusion that route closures and elimination of cross-country travel minimized impacts).

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<sup>6</sup> *Id.* § 3(a). Section 3(a) also provides that “[a]reas and trails shall not be located in officially designated Wilderness Areas or Primitive Areas” and “shall be located in areas of the National Park system, Natural Areas, or National Wildlife Refuges and Game Ranges only if the respective agency head determines that ORV use will not adversely affect their natural, aesthetic, or scenic values.”

<sup>7</sup> 43 C.F.R. § 8342.1 (BLM); 36 C.F.R. § 212.55(b) (Forest Service). NPS regulations provide that “[r]outes and areas designated for off-road motor vehicle use [in national recreation areas, seashores, lakeshores, and preserves] shall be promulgated as special regulations” and “shall comply with . . . E.O. 11644.” 36 C.F.R. § 4.10(b).

<sup>8</sup> Exec. Order 11644, § 3(a); 43 C.F.R. § 8342.1; 36 C.F.R. § 212.55(b); *see also WildEarth Guardians v. U.S. Forest Serv.*, 790 F.3d 920, 932 (9th Cir. 2015) (agency must apply the criteria “with the objective of minimizing . . . the effects of each particularized area and trail designation”); BLM Manual 1626.06(A)(2)(a) & (B) (agency must pay “[p]articular attention . . . to documentation of how the [minimization criteria] were considered in making [ORV] area designation decisions” and “in making individual road, primitive road, and trail designation decisions”).

- *Southern Utah Wilderness Alliance v. Burke*, 981 F. Supp. 2d 1099, 1104-06 (D. Utah 2013) (agency acknowledgment of the minimization criteria was insufficient where the record showed no analysis of specific impacts of designated ORV routes in BLM’s Richfield Field Office).
- *Friends of the Clearwater v. U.S. Forest Service*, No. 3:13-CV-00515-EJL, 2015 U.S. Dist. LEXIS 30671, at \*37-52 (D. Idaho Mar. 11, 2015) (Forest Service’s conclusory statements failed to show how it selected ORV routes with the objective of minimizing their impacts in the Clearwater National Forest).
- *WildEarth Guardians v. U.S. Forest Service*, 790 F.3d 920, 929-32 (9th Cir. 2015) (Forest Service failed to “apply the minimization criteria to *each area* it designated for snowmobile use” on the Beaverhead-Deerlodge National Forest and to provide the “more granular analysis [necessary] to fulfill the objectives of Executive Order 11644”).

Collectively, these cases confirm the agencies’ substantive obligation to meaningfully apply and implement – not just identify or consider – the minimization criteria when designating each area or trail, and to show in the record how they did so.

President Obama’s November 2015 memorandum on mitigating impacts on natural resources complements and reinforces the minimization criteria. The memo articulates a policy for the Departments of Interior and Agriculture “to avoid and then minimize harmful effects to land, water, wildlife, and other ecological resources (natural resources) caused by land- or water-disturbing activities, and to ensure that any remaining harmful effects are effectively addressed, consistent with existing mission and legal authorities.”<sup>9</sup> The memo requires each agency to develop and implement guidance that establishes “a clear and consistent approach for avoidance and minimization of, and compensatory mitigation for, the impacts of their activities and the projects they approve” that accomplishes a “net benefit goal” (or, at a minimum, a no net loss) for important, scarce, or sensitive natural resources.<sup>10</sup>

### C. Immediate need for leadership and direction

It has been over four decades since Presidents Nixon and Carter obligated federal agencies to designate a system of areas and trails that minimizes impacts from ORV use. Yet the agencies still struggle to satisfy that obligation. In 2004, then Forest Service Chief Dale Bosworth identified unmanaged recreation as one of the “[top four threats](#)” to the national forests, and the next year promulgated regulations requiring National Forest System units to restrict ORVs to a designated system of routes and areas. This prompted the Forest Service to move quickly to complete summer-time ORV planning on all but a handful of national forests; the agency is just now starting to tackle winter-time ORV planning.<sup>11</sup>

<sup>9</sup> [Presidential Memorandum](#): Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment, § 1 (Nov. 3, 2015), available at <https://www.whitehouse.gov/the-press-office/2015/11/03/mitigating-impacts-natural-resources-development-and-encouraging-related>.

<sup>10</sup> *Id.* §§ 1, 3(b), 4.

<sup>11</sup> In 2013, a federal court found that the Forest Service regulation allowing but not requiring designation of a system for over-snow vehicle use was inconsistent with the executive order requirement “to ensure that *all* [public] lands are designated for *all* off-road vehicles” in a way that minimizes resource damage and conflicts with

While the agency deserves kudos for expeditiously ending cross-country driving and, in certain instances, elevating resource protection needs in its ORV designation decisions, it has generally failed to apply and implement the minimization criteria. That failure has resulted in avoidable resource damage and conflicts with other recreational uses.

In the BLM's case, the agency has yet to develop ORV travel management plans for the majority of its units. The agency, however, is embarking on an ambitious plan to complete nearly 500 travel plans by 2020.<sup>12</sup> Like the Forest Service, the BLM has lost court challenges to early decisions based on its failure to apply the minimization criteria. While the agency has generally failed to apply and implement the minimization criteria, its ORV designation decisions in certain national monument units do appear to minimize impacts to monument objects including cultural and archaeological resources and provide examples of good planning practice that may be transferable.

On the Park Service side, dozens of national recreation areas, seashores, lakeshores, and preserves that permit ORV use have yet to comply with the requirement to promulgate special regulations designating areas and trails to minimize resource damage and recreational use conflicts, consistent with the executive orders.<sup>13</sup> As with the Forest Service and BLM, NPS ORV management has not escaped litigation, and the agency's special regulations often minimize impacts to park resources only where the agency is under significant legal and political pressure.

Despite the string of court losses, the agencies have generally declined to issue clarifying guidance to ensure that future ORV plans satisfy the substantive duty to minimize impacts and conflicts, as well as to reduce their legal vulnerability.<sup>14</sup> In the meantime, mismanaged ORV use continues to degrade soil, air, and water quality, threaten imperiled wildlife species, impair climate change adaptation, and diminish the experience of the majority of public lands visitors who enjoy the natural landscape through quiet, non-motorized forms of recreation. The resulting resource damage, public safety concerns, and conflicts also diminish the experience of ORV recreationists who do not want their use to unnecessarily harm the

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other recreational uses. *Winter Wildlands Alliance v. U.S. Forest Service*, No. 1:11-CV-586-REB, 2013 U.S. Dist. LEXIS 47728, at \*27-36 (D. Idaho, Mar. 29, 2013). In response, the Forest Service finalized a winter travel management rule in January 2015. The rule is codified at 36 C.F.R. part 212, subpart C and requires forests to designate a system of areas and trails for over-snow vehicle use that satisfies the minimization criteria.

<sup>12</sup> See [BLM, 2020 Travel and Transportation Management Vision](http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2015.Par.52719.File.dat/IM2015-060_att2.pdf) (April 2015), available at [http://www.blm.gov/style/medialib/blm/wo/Information\\_Resources\\_Management/policy/im\\_attachments/2015.Par.52719.File.dat/IM2015-060\\_att2.pdf](http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2015.Par.52719.File.dat/IM2015-060_att2.pdf).

<sup>13</sup> 36 C.F.R. § 4.10(b). On the winter-time side, NPS regulations prohibit snowmobile use except on designated routes and water surfaces that are used by motor vehicles during other seasons, and where those routes and water surfaces are designated for snowmobile use by special regulation. *Id.* § 2.18(c).

<sup>14</sup> The agencies' current directives governing travel management planning fail to provide any meaningful direction on application of the minimization criteria. For example, Forest Service Handbook 7709.55, ch. 10 does not address the minimization criteria, and Forest Service Manual 7715 lists "consider[ation of] the [minimization] criteria in 36 CFR 212.55" as one of seven "policy" objectives for travel management decisions, but then simply recites the language of the regulation. Forest Service Manual 7715.5(2). Similarly, BLM's Travel and Transportation Management Manual 1626 simply cites 43 C.F.R. § 8342.1 [the minimization criteria] as providing the relevant criteria for designation of areas and routes and states that "the decision-making process must be thoroughly documented in the administrative record." BLM Manual 1606.06(A)(2)(a) & (B).



environment or others' enjoyment, and are concerned about being unfairly blamed for problems resulting from mismanagement.

In this context, there is an immediate need for leadership and direction to assist field managers with proper implementation of the executive order minimization criteria. This need is particularly urgent given upcoming agency planning and policy initiatives. As mentioned above, the Forest Service is commencing winter travel management planning under a new rule and is currently revising its directives to reflect the mandate to plan for snowmobile use. It is important to make sure that the agency's approach to summer-time ORV planning is not a harbinger for similar non-compliance in upcoming winter travel management planning. On the BLM side, the agency hopes to complete hundreds of new travel management plans over the next five years. BLM is also currently revising its Travel and Transportation Management Manual and Handbook and anticipates a 2016 rollout of its "Planning 2.0," which likely will adopt the common practice of severing land use planning (where ORV areas generally are designated) from travel management planning (where ORV routes typically are designated).

These initiatives each provide an immediate need and important opportunity for additional agency guidance on application of the minimization criteria. More detailed guidance on how to apply the minimization criteria will lead to better environmental protection, more rewarding and safer recreational experiences for all, and more efficient and less expensive planning. Guidance will also assist with implementation of President Obama's mitigation policy, which complements and is consistent with the executive order direction to minimize impacts. Agency guidance on application of the minimization criteria and on implementation of the mitigation policy should reflect and reinforce one another.

The following case studies – which highlight both successes and failures – and recommendations offer take-aways and next steps for correcting course and institutionalizing policies and practices to finally satisfy the legal obligation first articulated by President Nixon over forty years ago.

## **II. Case Studies**

The following case studies from the Forest Service, BLM, and NPS highlight individual elements of selected travel or resource management plans that make ORV area and/or trail designations. The case studies are not intended to be comprehensive or representative either in the selection of plans or in the description of plan elements. Rather, they are intended to highlight: (1) problematic approaches that fail to comply with the ORV executive orders and must be avoided in the future, and (2) examples of good planning practices that could be incorporated into a model for application of the minimization criteria. Importantly, the case studies highlighting good planning practices are not the result of the agencies' application of the minimization criteria. In fact, The Wilderness Society and partner organizations have struggled to identify *any* Forest Service or BLM ORV designation decisions that show effective application of the minimization criteria. Nevertheless, the case studies highlight some positive trends, practices, approaches, or outcomes that may be transferable to agency efforts to correct course and finally achieve compliance with the executive orders.

The case studies, which are attached as an appendix, are as follows:

### **A. Forest Service**

1. Salmon-Challis National Forest Travel Management Plan, pp. A-1 – A-2
2. Clearwater National Forest Travel Management Plan, pp. A-3 – A-4
3. White River National Forest Travel Management Plan, pp. A-5 – A-7
4. Sawtooth National Forest, Minidoka Ranger District Travel Management Plan, pp. A-8 – A-10
5. Beaverhead-Deerlodge National Forest Land & Resource Management Plan, pp. A-11 – A-12

### **B. BLM**

6. Richfield Field Office Resource Management Plan and Travel Management Plan, pp. A-13 – A-15
7. West Mojave Resource Management Plan Amendment and Route Designation Project, California Desert Conservation Area, pp. A-16 – A-17
8. Sonoran Desert and Ironwood Forest National Monument Resource Management Plans, pp. A-18 – A-19

### **C. National Park Service**

9. Yellowstone National Park Winter Use Plan and Special Regulation, pp. A-20 – A-22
10. Cape Hatteras National Seashore ORV Management Plan and Special Regulation, pp. A-23 – A-24

## **III. Recommendations**

There is an immediate need for agency leadership and direction to ensure that ongoing and future travel management planning efforts satisfy the executive order obligation to minimize resource damage and recreational use conflicts associated with ORV use. The most obvious and effective approach is for the agencies to issue guidance that clarifies their obligation to: (1) actually *minimize* impacts – not just identify or consider them – when designating areas and trails for ORV use, and show how they did so in the administrative record; and (2) apply a transparent and common-sense methodology for meaningful application of the minimization criteria that provides opportunities for public participation, incorporates the best available scientific information and best management practices, addresses site-specific and larger-scale impacts, and accounts for monitoring and enforcement needs and available resources. We address each of these elements below, capitalizing on the take-aways from the case studies.

### **A. Substantive duty to minimize impacts and conflicts**

As a threshold matter, agency guidance should clarify that agencies must *minimize* impacts – not just identify or consider them – when designating areas or trails for ORV use, and demonstrate in the

administrative record how they did so.<sup>15</sup> In other words, the record must show how the minimization criteria were “implemented into the decision process.”<sup>16</sup> As the Ninth Circuit recently held, “[w]hat is required is that the [agency] document how it evaluated and applied [relevant] data on an area-by-area [or route-by-route] basis *with the objective of minimizing impacts.*”<sup>17</sup> This substantive obligation is consistent with President Obama’s mitigation policy requiring agencies to avoid and minimize harmful impacts to achieve no net loss of – and ideally a net benefit to – important natural resources.<sup>18</sup>

As the case studies and litigation outcomes highlight, there are few examples of agency compliance with that substantive mandate – and numerous examples of agency failures. The NPS’s ORV designations and management in Yellowstone National Park and Cape Hatteras National Seashore, however, provide examples of what it might look like to minimize impacts to sensitive wildlife, air quality, and non-motorized uses. And while not an application of the minimization criteria, the BLM’s impacts analysis and designation of ORV routes to protect and enhance certain natural and cultural resources in the Sonoran Desert and Ironwood Forest National Monuments also provide examples of what compliance with the substantive duty to minimize impacts might look like. Finally, the Clearwater National Forest’s analysis and decision to close recommended wilderness areas to ORV use demonstrates minimization of impacts to the forest’s wilderness resources and associated values and uses.

## B. Mitigation of impacts

Guidance should also clarify that agency attempts to *mitigate* impacts associated with an existing ORV system are insufficient to fully satisfy the duty to *minimize* impacts, as specified in the executive orders. The language of the executive orders makes this clear: “[a]reas and trails shall be *located* to minimize” impacts and conflicts.<sup>19</sup> Thus, application of the minimization criteria should be approached in two steps: first, the agency locates areas and routes to minimize impacts, and second, the agency establishes site-specific management actions to further reduce impacts. The best available science confirms this tiered approach, as does President Obama’s mitigation policy, which articulates a hierarchy of first

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<sup>15</sup> As the courts have routinely held, agencies must document in the administrative record how their ORV designation decisions minimize resource damage and conflicts with other recreational uses. Importantly, that procedural duty – which is grounded in the Administrative Procedure Act – is both related and *in addition* to the substantive duty to minimize impacts. In other words, agencies may not remedy substantive violations of the executive orders simply by providing additional explanation in the record to justify the same designation decisions. Unfortunately, that approach is something we have seen on remand from court decisions finding such violations, including in BLM’s Richfield Field Office, on the Minidoka Ranger District of the Sawtooth National Forest, and on the Beaverhead-Deerlodge National Forest.

<sup>16</sup> *Idaho Conservation League*, 766 F. Supp. 2d at 1072-74 (explaining that “[t]he whole goal or purpose of the exercise is to select routes in order to minimize impacts”); *see also, e.g., Center for Biological Diversity*, 746 F. Supp. 2d at 1080-81 (“BLM is required to place routes specifically to minimize” impacts).

<sup>17</sup> *WildEarth Guardians*, 790 F.3d at 931 (emphasis added); *see also id.* at 932 (“consideration” of the minimization criteria is insufficient; rather, the agency “must apply the data it has compiled to show how it designed the areas open to snowmobile use ‘with the objective of minimizing’” impacts).

<sup>18</sup> [Presidential Mitigation Memorandum](#), §§ 1, 3(b).

<sup>19</sup> Exec. Order 11644, § 3(a); *see also Center for Biological Diversity*, 746 F. Supp. 2d at 1080-81 (“‘Minimize’ as used in the regulation . . . refers to the *effects* of route designations, i.e. the BLM is required to place routes specifically to minimize ‘damage’ to public resources, ‘harassment’ and ‘disruption’ of wildlife and its habitat, and minimize ‘conflicts’ of uses.” (footnote and citations omitted)).

avoiding and minimizing impacts through proper project siting and design, and only then considering additional measures to mitigate any remaining harmful effects.<sup>20</sup>

The relative importance of the two steps may vary according to the specific circumstances of the land management unit. In some instances, the implementation of mitigation measures may be very important to the overall minimization effort, while in others the initial placement and designation of ORV areas and routes may dominate. Examples of the former include the Park Service's science-based, adaptive management approaches at Yellowstone National Park and Cape Hatteras National Seashore. An example of the latter is the Clearwater National Forest, where the agency decided to remove ORVs from recommended wilderness altogether.

The distinction between mitigation and minimization has generally eluded the agencies. For example, the instruction memorandum from BLM's Utah State Office appears to sanction an inappropriate mitigation approach, directing agency staff to identify "recommended mitigation measures to minimize user and resource conflicts for each alternative."<sup>21</sup> Similarly, on remand from a court decision overturning its 2008 travel plan, the Minidoka Ranger District of the Sawtooth National Forest – rather than revisiting its designation decisions – has focused exclusively on monitoring and maintenance of the designated system.<sup>22</sup>

### **C. Application of minimization criteria to area allocations**

Guidance should also clarify that the agencies must satisfy their substantive duty to minimize impacts when making *both* ORV area allocations (typically made in land management plans) and specific route designations (often made in travel plans). The plain language of the executive orders and agency regulations clearly require this, yet we have seen the agencies make area allocations with even more disregard for the minimization criteria than in the route designation context.<sup>23</sup> Minimization of impacts associated with area designations is particularly important in winter travel management planning, where snowmobiles are often permitted to travel freely throughout large open areas, rather than being confined to specific routes.<sup>24</sup> In overturning the Forest Service's land management plan decision to

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<sup>20</sup> See [Switalski and Jones, 2012](#) (cataloguing best management practices for: (1) siting/locating routes to minimize impacts; (2) implementation, including maintenance, restoration, adaptive management, and other mitigation measures; and (3) monitoring); [Presidential Mitigation Memorandum](#), §§ 1, 2(f).

<sup>21</sup> See Richfield Field Office case study, pp. A-13 – A-15 of this report.

<sup>22</sup> See Sawtooth National Forest, Minidoka Ranger District case study, pp. A-8 – A-10 of this report. BLM's proposed route network in the West Mojave Desert is a particularly egregious example: it would designate a massive and damaging ORV route network and then attempt to mitigate the impacts associated with its over 10,000-mile network if and when a complicated set of triggers are met. See West Mojave case study, pp. A-16 – A-17 of this report.

<sup>23</sup> For example, BLM's 2011 [Resource Management Plan](#) for the Little Snake Field Office designated as open to cross-country ORV travel nearly 20,000 acres in the South Sand Wash Basin Special Recreation Management Area despite the presence of significant cultural sites vulnerable to ORV damage and other sensitive resources including a wild horse herd.

<sup>24</sup> The Forest Service's winter travel management rule permits open area designations to be significantly larger than in the summer travel planning context, and it does not explicitly require analysis of individual routes within those large open areas. See 36 C.F.R. § 212.1 (definition of "area").

allocate over 60% of the Beaverhead-Deerlodge National Forest to snowmobile use, the Ninth Circuit Court of Appeals recently confirmed that the agency is required “to apply the minimization criteria to *each area* it designate[s] for snowmobile use.”<sup>25</sup>

We also understand that BLM’s upcoming Planning 2.0 likely will sever land use planning (and associated ORV area allocations) from travel management planning designed to designate specific routes – an approach that is already commonplace. With area allocation decisions made in land use plans setting the framework for where route designations will occur in travel plans (and often leaving large swaths of land open to cross-country motorized travel, with no future decision-making required to authorize that use), proper application of the minimization criteria at both scales is important and required.

#### **D. Key elements of recommended methodology**

In order to achieve compliance with the substantive duty to minimize impacts associated with area and trail designations, the agencies must apply a transparent and common-sense methodology for meaningful application of each minimization criterion. Federal court decisions and the case studies in this white paper highlight necessary elements of that methodology, which are described below and should be included in agency guidance.

First, application of the minimization criteria is not solely an office exercise. As the courts have repeatedly made clear, use of cryptic spreadsheets or matrices that favor ORV use and do not facilitate implementation of the substantive duty to minimize impacts is inadequate.<sup>26</sup> Rather, agencies should get out on the ground, gather site- and resource-specific information, ground-truth desk-top analyses, and then utilize that data to actually apply the criteria to minimize resource damage and use conflicts associated with each designated area and route.

The Salmon-Challis National Forest provides a telling example. There, the court invalidated the agency’s route designations that failed to utilize monitoring and other site-specific data showing resource damage.<sup>27</sup> On remand, however, the agency used existing data and gathered additional site-specific information to actually assess the impacts of each route, resulting in closures of routes causing resource damage. The story on the Sawtooth National Forest is not as promising. There, the agency has taken the troubling approach on remand that it need not apply each minimization criterion to each designated route and instead may rely on compliance with the governing land and resource management plan as a proxy for satisfying its obligations under the executive orders.<sup>28</sup> A federal court recently invalidated that approach in a challenge to another travel management plan: “[m]erely concluding that the proposed action is consistent with the Forest Plan does not . . . satisfy the requirement that the Forest Service

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<sup>25</sup> *WildEarth Guardians*, 790 F.3d at 930.

<sup>26</sup> *See, e.g., Idaho Conservation League*, 766 F. Supp. 2d at 1071-74 (agency may not rely on “Route Designation Matrices” that fail to show if or how the agency selected routes with the objective of minimizing their impacts); *S. Utah Wilderness Alliance*, 981 F. Supp. 2d at 1105 (“cryptic spreadsheet for each route segment provides inadequate information . . . for someone other than the BLM to know why or how the routes were chosen”).

<sup>27</sup> *Idaho Conservation League*, 766 F. Supp. 2d at 1074-77.

<sup>28</sup> Land and resource management plans are designed to provide long-term, forest-wide management direction – not to satisfy the executive order minimization criteria. *See* 16 U.S.C. § 1604; 36 C.F.R. part 219, subpart A.

provide some explanation or analysis showing that it considered the minimizing criteria and took some action to minimize environmental damage when designating routes.”<sup>29</sup> This is just one example where clear agency guidance could avoid duplicative mistakes.

The type of site-specific information will vary depending on the area and resources at stake. For example, at Cape Hatteras National Seashore, the National Park Service conducts daily monitoring of sea turtle and bird nesting sites along designated ORV routes, and implements temporary route closures as necessary to protect those resources. In the Ironwood Forest National Monument, BLM conducted on-the-ground inventories for archaeological and cultural resources along routes proposed for designation to gather the information necessary to determine which routes to designate as open and which to close. By contrast, a federal court invalidated BLM’s route designations in the Richfield Field Office in part because the agency failed to conduct such inventories.<sup>30</sup> Absent inventory data, agencies lack the information necessary to locate designated routes to minimize impacts to cultural resources.

Second, effective application of the minimization criteria must include meaningful opportunities for public participation and input early in the planning process.<sup>31</sup> In many cases, public lands users and other stakeholders are the best source of information for identifying resource and recreational use conflicts. As illustrated in the litigation over the Salmon-Challis National Forest travel plan, agencies disregard site-specific information submitted by the public at their peril. At the same time, it is important that agencies assess the reliability and accuracy of information they receive, and independently verify the information as needed. In certain circumstances, collaborative processes such as the Vail Pass Task Force on the White River National Forest may provide valuable recommendations or information.

Third, application of the minimization criteria should be informed by the best available scientific information and associated strategies and methodologies for minimizing impacts to particular resources.<sup>32</sup> In 2012, the Journal of Conservation Planning published a literature review and best management practices (BMPs) for ORVs on national forest lands.<sup>33</sup> The BMPs provide guidelines, based on peer-reviewed science, for ORV designation decisions, implementation actions, and monitoring activities that are intended to minimize impacts to soils, water quality, vegetation, and wildlife, and conflicts with other recreational uses. Winter Wildlands Alliance recently published a similar literature review and BMPs for winter travel planning on national forest system lands, which is currently undergoing peer review.<sup>34</sup> Agency decision-making processes – and ideally agency guidance addressing

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<sup>29</sup> *Friends of the Clearwater*, 2015 U.S. Dist. LEXIS 30671, at \*46.

<sup>30</sup> The court’s decision that BLM’s failure to conduct on-the-ground inventories violated the National Historic Preservation Act is currently on appeal.

<sup>31</sup> See 36 C.F.R. § 212.52(a) (Forest Service); 43 C.F.R. § 8342.2(a) (BLM).

<sup>32</sup> See *Friends of the Clearwater*, 2015 U.S. Dist. LEXIS 30671, at \*24-30, 40-52 (agency failed to consider best available science on impacts of motorized routes on elk habitat effectiveness or to select routes with the objective of minimizing impacts to that habitat and other forest resources).

<sup>33</sup> [Switalski and Jones, 2012](#).

<sup>34</sup> [Switalski, 2014](#).

the minimization criteria – should reference and incorporate these BMPs.<sup>35</sup> Although they were formulated for national forest lands, many of the BMPs may be applicable to ORV designation decisions on BLM and NPS lands as well.

In addition to generalized BMPs, application of the minimization criteria should incorporate any relevant site- or resource-specific scientific information or analysis. For example, Yellowstone National Park not only compiled and incorporated the best available scientific information related to snowmobile use and park resources – even convening a scientific advisory team to provide guidance on those efforts – but it also conducted additional scientific studies to fill information gaps on air quality, soundscapes, snowpack chemistry, and socioeconomic impacts. The ORV management plan for Cape Hatteras National Seashore incorporates management strategies to minimize impacts to imperiled sea turtles and birds based on standards contained in state and federal recovery plans and other peer-reviewed, scientific studies. And the White River National Forest conducted a detailed analysis of recreational use conflicts that assessed factors such as the quality of recreational experiences, average travel distances and terrain needs for motorized versus non-motorized users, crowding, user trends and demands, and locations and availability of access points and staging areas.

Fourth, proper application of the minimization criteria must address both site-specific and larger-scale impacts.<sup>36</sup> For example, agencies should assess and minimize landscape-scale impacts such as habitat fragmentation, cumulative noise and air and water quality impacts, and degradation of wilderness-quality lands and associated opportunities for primitive forms of recreation. Even to the extent they have considered or applied the minimization criteria, the agencies have generally failed to assess and minimize these larger-scale impacts. The Clearwater National Forest’s analysis of ORV impacts on recommended wilderness areas, however, did address landscape-scale impacts such as disturbance of long-term ecological processes and sights and sounds that degrade the areas’ naturalness and opportunities for solitude. Similarly, Yellowstone National Park analyzed the effects of snowmobile use on park resources at the site-specific and landscape scales and in the short- and long-term, looking, for example, at long-term population dynamics and range-wide displacement of bison and elk, in addition to shorter-term behavioral and physiological responses.

Finally, proper application of the minimization criteria should take into account available resources for monitoring and enforcement, as well as any measures designed to further reduce and mitigate impacts.<sup>37</sup> For example, the chaotic and damaging situation in the West Mojave Desert highlights the

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<sup>35</sup> The Bitterroot National Forest recently referenced and applied BMPs from [Switalski and Jones, 2012](#) in its Decision Notice/Finding of No Significant Impact for a project involving the designation of ORV trails. See [Darby Lumber Lands Phase I – Decision Notice and Finding of No Significant Impact](#), pp. 13-14.

<sup>36</sup> See, e.g., *Idaho Conservation League*, 766 F. Supp. 2d at 1066-68, 1074-77 (invalidating travel plan that failed to consider aggregate impacts of short motorized routes on wilderness values or site-specific erosion and other impacts of particular routes).

<sup>37</sup> As described above, adopting measures designed to *mitigate* impacts associated with ORV use alone is insufficient to satisfy the agencies’ obligation under the executive orders to locate designated areas and trails to *minimize* resource damage and conflicts with other recreational uses. Where mitigation measures assist the agency in satisfying its minimization duty under the executive orders, however, the agency should demonstrate a reasonable expectation that resources will be available to ensure their implementation.

importance of designating an ORV system that the agency is capable of enforcing and maintaining. Conversely, the Park Service devotes significant resources to monitoring and enforcement at Cape Hatteras National Seashore – including daily patrols for nesting sea turtles and birds and associated temporary closures that are posted on-site and regularly updated on an interactive, online Google Earth map. To ease enforcement obligations and ensure user compliance in the first place, ORV designation decisions should establish clear boundaries and simple restrictions (posted on-site *and* depicted on a widely available ORV area and route map) designed to minimize resource damage and conflicts with other recreational uses, and should follow a consistent rubric that areas and routes are closed unless marked open on a map. The clear delineations between motorized and non-motorized areas and trails in the management plan for the Vail Pass Winter Recreation Area on the White River National Forest provide a good example. The clear management direction at Vail Pass is further reinforced by robust monitoring and enforcement by seasonal rangers funded through permit fees.

We recommend that the agencies explore and develop policies, guidance documents, and other tools that incorporate these recommendations and ensure future compliance with the executive orders. The Forest Service’s ongoing effort to update its directives to be consistent with the new winter travel management planning rule, BLM’s ongoing revision of its Travel and Transportation Management Manual and Handbook, the anticipated 2016 rollout of BLM’s Planning 2.0, and implementation of the presidential memorandum on mitigation each provide immediate opportunities for the agencies to incorporate useful guidance on the minimization criteria into their directives. In the short-term, it also makes sense for agency directors to issue instructive memoranda explaining the agencies’ responsibilities under the executive orders.

## IV. Conclusion

It has been over four decades since President Nixon obligated the federal land management agencies to minimize resources damage and recreational use conflicts associated with ORV use. With the Forest Service embarking on winter travel planning and the BLM ramping up its travel planning efforts, it is time for the agencies to provide leadership and direction to guide those processes and avoid additional litigation. We look forward to assisting the agencies with that effort and hope that the recommendations in this white paper provide a solid starting point.

Please contact Alison Flint (303.802.1404, [alison\\_flint@tws.org](mailto:alison_flint@tws.org)) with any questions.<sup>38</sup>

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<sup>38</sup> The following Wilderness Society staff and volunteer interns contributed substantially to the content and production of this white paper: Alison Flint, Vera Smith, Phil Hanceford, Nada Culver, Scott Miller, Barbara Young, Josh Hicks, Brad Brooks, and Louisa Eberle.



## **APPENDIX – Case Studies**

# Travel Management Plan

## Salmon-Challis National Forest, Idaho

### U.S. Forest Service

Idaho's Salmon-Challis National Forest is one of the largest and most remote national forests in the West. Its large roadless areas provide outstanding fish and wildlife habitat and recreational opportunities. The remoteness of the forest's trail network, however, has limited the agency's ability to maintain, monitor, and enforce ORV use, resulting in significant damage to forest resources. The Forest Service's 2009 travel plan ignored the agency's duty to minimize those impacts and designated hundreds of miles of ORV trails



*Pioneer Mountains Recommended Wilderness Area (credit: Brad Smith)*

causing resource damage and conflicts with non-motorized uses, prompting conservation groups to file – and ultimately win – a lawsuit in federal court. Fortunately, the Forest Service has since taken more seriously its duty to minimize impacts, leading to closure of certain damaging routes.

#### Timeline

- 2008: conservation groups submit site-specific comments and data documenting the condition and impacts of over 400 miles of ORV routes across the forest, including those in sensitive areas.
- September 2009: Forest Service finalizes [travel plan](#), designating more than 3,500 miles of motorized roads and trails.
- January 2010: conservation groups file suit in federal court.
- February 2011: court rules that “the Administrative Record does not demonstrate whether or how [the Forest Service] implemented and incorporated the

***“[A]gencies [are] bound by the plain language of the ORV Executive Orders . . . . Simply listing the criteria and noting that they were considered is not sufficient to meet this standard. Instead, the Forest Service must explain how the minimization criteria were applied in the route designation decisions.”***  
*Idaho Conservation League v. Guzman, 766 F. Supp. 2d 1056, 1074 (D. Idaho 2011).*

minimization criteria into the Travel Plan,” among other legal violations, and sends the decision back to the agency. *Idaho Conservation League v. Guzman*, 766 F. Supp. 2d 1056, 1071-74 (D. Idaho 2011).

- November 2011: court enjoins ORV use on six routes causing irreparable resource damage.
- August 2014: Forest Service releases [Final Supplemental EIS](#) and [Record of Decision](#), closing approximately 45 miles of routes due to resource impacts from ORV use and imposing certain seasonal restrictions to prohibit ORV use during snowmelt and run-off, when trails are most susceptible to damage.



*Damaged trail in Winnemucca Creek  
(credit: Brad Smith)*



*Damaging ORV route at Swauger Lake  
within recommended wilderness, closed by  
the Forest Service in its 2014 decision  
(credit: Brad Smith)*

### **Take-Aways**

- Agency must do more than just identify or consider the minimization criteria; it must actually apply them on a route-by-route basis.
- Application of minimization criteria is not solely an office exercise: the Forest Service initially failed to utilize monitoring and other site-specific data submitted by conservation groups, but on remand used existing and gathered additional information to assess the impacts of each route, resulting in closures of routes causing resource damage.

# Travel Management Plan

## Clearwater National Forest, Idaho

### U.S. Forest Service

**T**he remote corners of Idaho's Clearwater National Forest remained largely untouched until the advent of modern ORVs. Expanding use and increased technological capabilities of dirt bikes, four-wheelers, snowmobiles, and even mountain bikes enabled more and more people to access roadless and recommended wilderness areas. These trends have impacted opportunities for primitive, non-motorized recreation in those areas, threatened wildlife habitat security, and caused soil erosion and stream sedimentation. Although deficient in protecting the larger forest matrix, the Forest Service's 2011 travel management plan considered impacts to recommended wilderness areas and took protective action to minimize them by restricting both summer and winter-time ORV use in those areas.



*Bear grass within recommended wilderness (credit: John McCarthy)*

#### Timeline

- July 2005: Forest Service initiates travel planning process.
- August 2011: Forest Service releases [Final EIS](#).
- November 2011: Forest Service finalizes [travel plan](#) closing 200,000 acres of recommended wilderness to ORVs, including snowmobiles, and leaving open only 2 miles of existing trail in the proposed Great Burn Wilderness Area.
- August 2012: Motorized user groups file lawsuit seeking to overturn ORV prohibitions in recommended wilderness areas.
- February 2015: Court approves a settlement agreement requiring the agency to conduct a supplemental NEPA analysis, but leaves

*“Restricting almost all motorized (summer and winter) uses . . . would ensure that long-term ecological processes remain intact and operating because the areas would not be subject to current or potentially increased future ground disturbance associated with motorized vehicles in particular. The area would appear more undeveloped than at present because the sights and sounds associated with motorized use would not occur. The opportunity for solitude would be greater . . . because most of the area would be restricted from motorized use.” [Final EIS, p. 3-137, describing impacts to recommended wilderness.](#)*

prohibitions in recommended wilderness in place.<sup>39</sup>

### Take-Aways

- Analysis demonstrated that motorized use was impairing wilderness character of recommended wilderness, resulting in closures. Forest Service recognized that designating motorized use in recommended wilderness impairs its wilderness suitability because Congress is unlikely to designate those areas after motorized uses become established.
- Forest Service took initiative to proactively address winter-time ORV use and minimize impacts associated with snowmobile use in recommended wilderness areas.



***Snowmobile “high-marking” in Great Burn Recommended Wilderness Area, now closed to motorized uses (credit: Dick Walker)***



***Fly fishing on Kelly Creek in the Great Burn Recommended Wilderness Area (credit: @Krista Schlyer/ILCP)***

<sup>39</sup> Another lawsuit challenging other, less protective elements of the forest’s 2011 travel plan resulted in a 2015 court decision invalidating the travel plan for failure to apply and implement the minimization criteria and to comply with governing forest plan standards designed to protect wildlife habitat. *Friends of the Clearwater v. U.S. Forest Service*, No. 3:13-CV-00515-EJL, 2015 U.S. Dist. LEXIS 30671 (D. Idaho Mar. 11, 2015). The entire plan is now back before the agency.

# Travel Management Plan

## White River National Forest, Colorado

### U.S. Forest Service

**W**ith its spectacular scenery, amenities ranging from developed ski areas to vast roadless and other wild lands, and close proximity to the Denver metro area, the White River National Forest is one of the most visited national forests in the nation and a mecca for both motorized and non-motorized forms of recreation. On snow-abundant and easily accessible Vail Pass, conflicts between snowmobiles and skiers and snowshoers escalated in the 1990s, leading to the formation of a collaborative



*Portion of extensive, high-elevation wetland complex in Freeman Creek Watershed, with Gore Range in the background (credit: Will Roush)*

task force that worked for more than a decade to ameliorate those conflicts. The forest's 2011 travel management plan adopted the task force's recommended management plan for the Vail Pass Winter Recreation Area and generally balanced motorized access with protection of forest resources and quiet recreation opportunities.

#### Timeline

- Mid-1990s: Vail Pass Task Force organized, with voluntary members representing motorized and non-motorized users.
- March 2011: Forest Service releases [Final EIS](#) and [travel management plan](#):
  - Designates summer and winter areas and routes available for motorized travel;
  - Identifies over 500 miles of system routes and nearly 700 miles of unauthorized routes for closure and decommissioning to reduce resource damage and wildlife fragmentation, concentrate use, remove unnecessary routes, and reflect budgetary constraints (FEIS, pp. 115-135);
  - Provides detailed analysis of recreational use conflicts and recreation planning for motorized and non-motorized uses (FEIS, pp.

***“[I]nstead of trying to provide all [recreational] opportunities in all locations possible, the forest will provide opportunities in appropriate locations and of sufficient quantity and quality to be sustainable, manageable, and remain as good visitor experiences.” [Final EIS, p. 70.](#)***

- 66-97); and
- Adopts Task Force’s recommended management plan for 55,000-acre [Vail Pass Winter Recreation Area](#), dividing the area into motorized/multi-use and non-motorized zones, with designated trails for each, and establishing a permitting system whose funds go to grooming, education, enforcement, and monitoring.

### **Take-Aways**

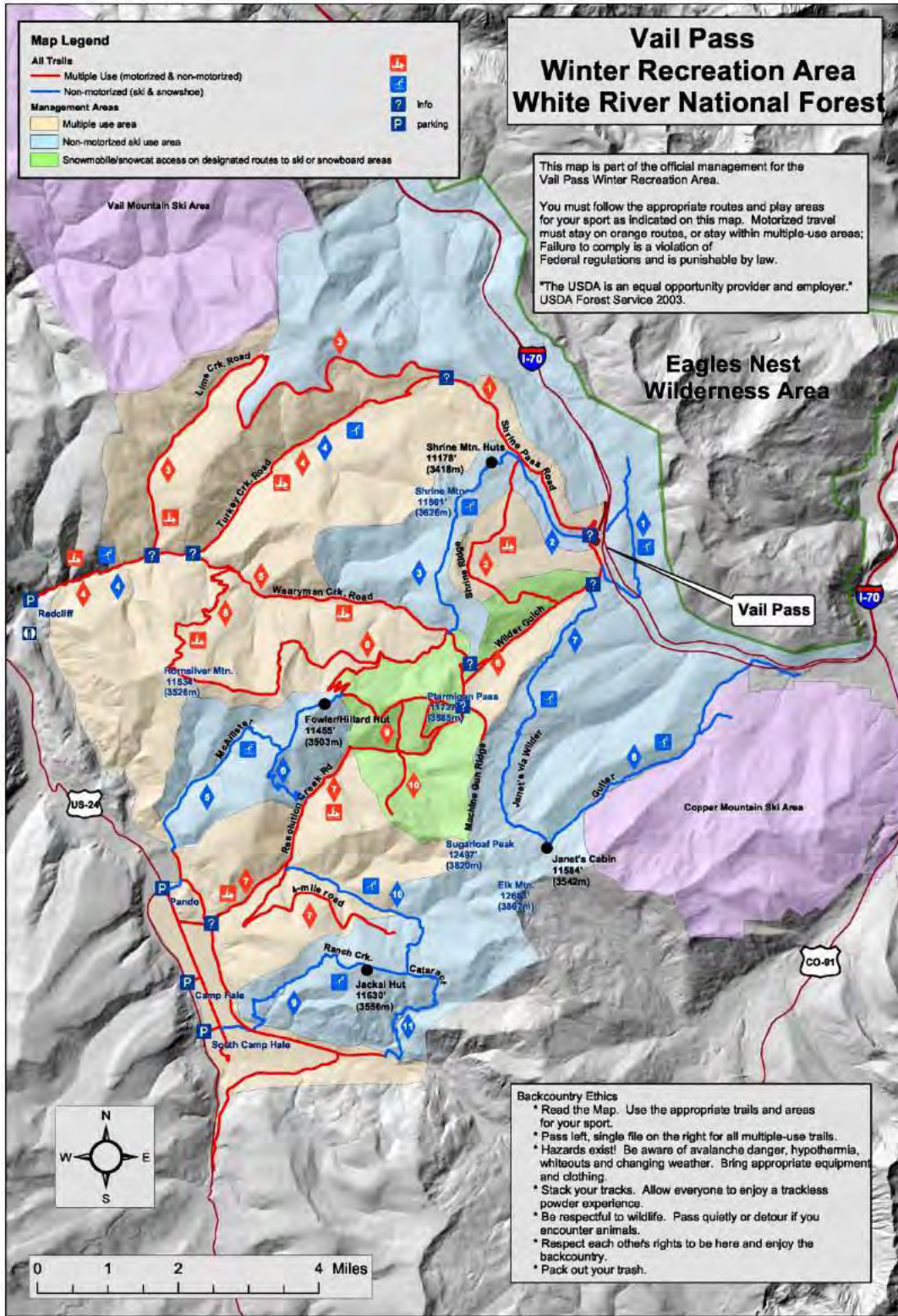
- Under the right circumstances, collaborative processes that provide motorized, non-motorized, and conservation stakeholders with a co-equal voice, well-defined goals, and shared decision-making can result in effective ORV management decisions.
- To minimize conflicts between uses, ORV designation decisions should establish clear boundaries and expectations and simple restrictions, and should be based on factors such as the quality of recreational experiences, terrain needs, crowding, user trends and demands, and locations and availability of access points and staging areas.
- Agencies should consider fiscal ability to adequately maintain and enforce the designated system to prevent resource damage and conflicts with other uses.



***Illegal ORV use beyond a Forest Service motorized trail closure, causing significant damage to alpine meadow ecosystem and detracting from hikers’ enjoyment of scenic Huntsman Ridge (credit: Will Roush)***



***A family enjoying the Vail Pass Winter Recreation Area (credit: [www.summitpost.org](http://www.summitpost.org))***





# Travel Management Plan

## Minidoka Ranger District, Sawtooth National Forest, Idaho

### U.S. Forest Service

**T**he easily accessible Minidoka Ranger District of southern Idaho's Sawtooth National Forest provides an abundance of recreational opportunities, including fishing, camping, pine nut gathering, hiking, and rock climbing. Despite the fact that less than 3% of recreation visits to the Sawtooth in 2005 were for ORV use, the Forest Service's 2008 travel plan revision for the Minidoka District designated nearly 2,000 miles of ORV routes, including many previously illegal, user-created trails in sensitive and impaired watersheds, riparian areas, and wildlife habitat. The agency's failure to minimize resource damage and comply with the Clean Water Act prompted conservation groups to file – and win – a lawsuit in federal court. Unfortunately, on remand, the Forest Service adopted an ill-conceived and troubling approach that compliance with the governing land and resource management plan necessarily satisfied its duty to minimize impacts associated with ORV use.



***Christ's Indian Paintbrush, an exceptionally rare plant species found only on a single mountaintop in the Minidoka Ranger District and threatened by invasive weeds that can be spread by ORV use (credit: U.S. Forest Service)***

#### **Timeline**

- November 2007: Forest Service releases [environmental assessment](#) (EA) for travel plan revisions in three Sawtooth Ranger Districts.
- December 2007: EPA comments that “there is no alternative included that would reflect actual recreation uses and priorities of the public,” “[a]ll proposed route designations . . . appear to disproportionately favor motorized recreation,” and “the number of miles of roads and trails . . . could . . . have a substantial negative impact on wildlife.”

***“It goes without saying that reducing ORV use is beneficial to resources. That conclusion, however, has already been reached by the laws and regulations requiring this action. What is required of the agency is an analysis comprised of something more than restating that conclusion.”*** *The Wilderness Society v. U.S. Forest Service, 850 F. Supp. 2d 1144, 1168 (D. Idaho 2012).*

- February 2008: Forest Service [finalizes travel plan revision](#) for Minidoka Ranger District, designating nearly 2,000 miles of roads and trails for ORV use, including the addition of 76 miles of user-created trails.
- August 2008: Conservation groups file suit in federal court.
- February 2012: Court finds numerous deficiencies in travel plan and corresponding NEPA analysis, but reserves judgment on whether the agency satisfied its duty to minimize ORV impacts. *The Wilderness Society v. U.S. Forest Service*, 850 F. Supp. 2d 1144 (D. Idaho 2012).
- February 2013: Sawtooth National Forest Supervisor issues a [white paper](#) directing that “the level of acceptable effects to demonstrate compliance with [the minimization criteria] is defined by the Sawtooth Forest Plan, which requires compliance with the Endangered Species Act (ESA), Clean Water Act (CWA), and other resource laws, regulations, and policy” (p. 3).
- October 2013: Court rules that general statements by the Forest Service about impacts to wildlife and water, and reliance on elimination of cross-country ORV travel and certain route closures, are insufficient to satisfy the minimization criteria. *The Wilderness Society v. U.S. Forest Service*, No. CV08-363-E-EJL, 2013 U.S. Dist. LEXIS 153036, at \*22-32 (D. Idaho Oct. 22, 2013).
- March 2014: Forest Service releases a [supplement](#) to the 2007 EA, highlighting monitoring and maintenance efforts, but adopting the white paper standard that 2008 route designations satisfy the minimization criteria because all action alternatives comply with the Forest Plan (pp. 50-52).
- August 2014: [Final decision notice](#) confirms approach from supplemental EA.

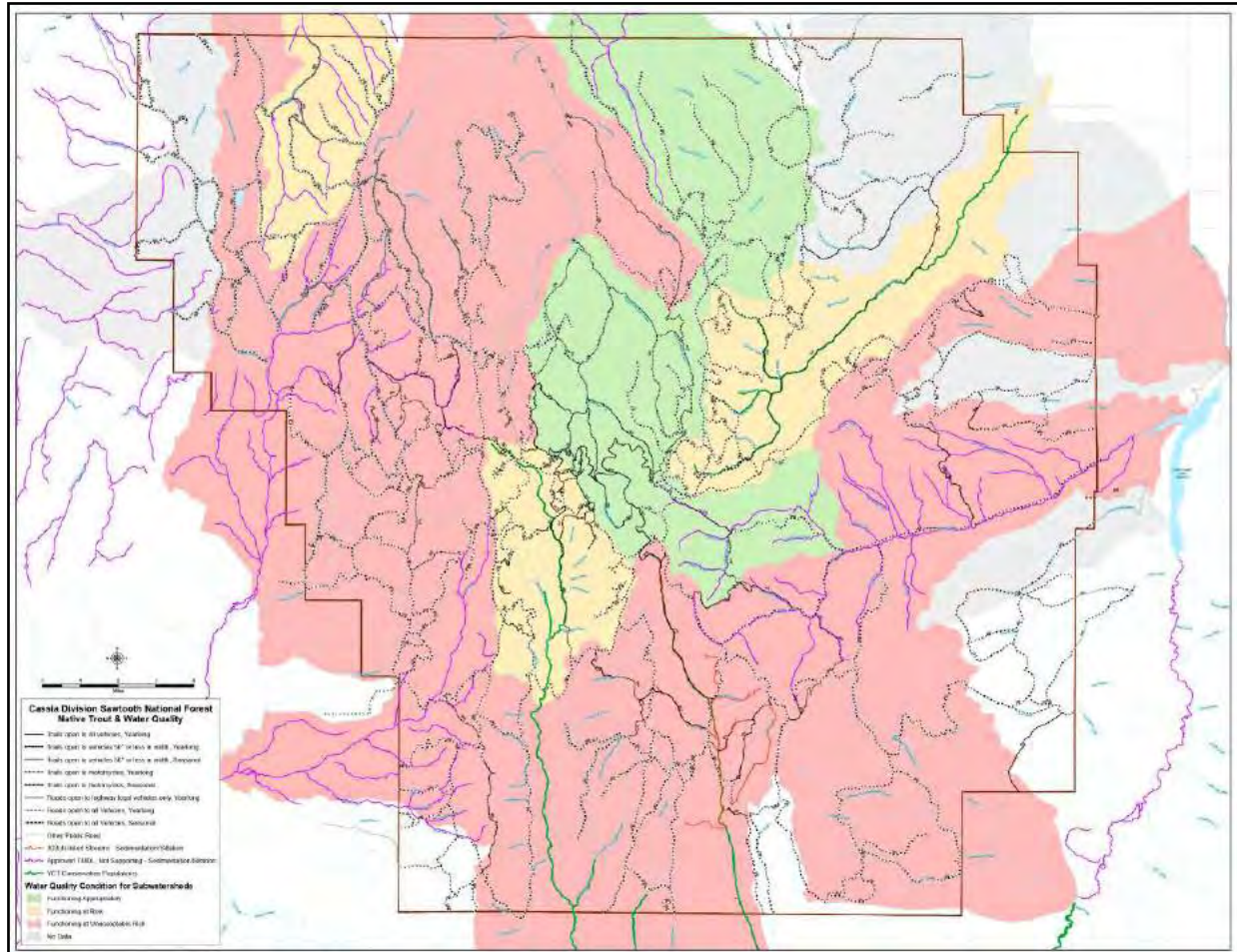


**ORV damage on user-created trail (credit: James Prunty)**

### **Take-Aways**

- Making a planning decision that improves environmental conditions (for instance, by eliminating cross-country driving and restricting ORVs to designated routes) does not satisfy the agencies’ duty to minimize resource damage and conflicts with other recreational uses associated with the areas and routes that are designated.
- Efforts to *mitigate* impacts associated with the designated ORV system (e.g., through monitoring and maintenance efforts) is insufficient to fully satisfy the executive orders, which require that designated areas and trails be *located* to minimize impacts and conflicts in the first instance.
- Reliance on the forest plan as a proxy for application of the minimization criteria is inappropriate because it conflates separate and distinct legal obligations. Forest plans are not designed to satisfy

the duty to minimize impacts under the executive orders, and compliance with plan direction does not necessarily mean impacts from ORV designations have been minimized.<sup>40</sup>



**Map depicting high density of motorized routes and seriously degraded watershed conditions (red = functioning at unacceptable risk; yellow = functioning at risk; green = functioning appropriately; gray = no data) in the Cassia Division of the Minidoka Ranger District, which includes nearly 500 miles of streams**

<sup>40</sup> A federal court explicitly rejected this approach in a March 2015 decision invalidating a different travel management plan. *Friends of the Clearwater v. U.S. Forest Service*, No. 3:13-CV-00515-EJL, 2015 U.S. Dist. LEXIS 30671, at \*46 (D. Idaho Mar. 11, 2015) (“Merely concluding that the proposed action is consistent with the Forest Plan does not, however, satisfy the requirement that the Forest Service provide some explanation or analysis showing that it considered the minimizing criteria and took some action to minimize environmental damage when designating routes.”).

# Land & Resource Management Plan

## Beaverhead-Deerlodge National Forest, Montana

### U.S. Forest Service

**S**outhwestern Montana’s Beaverhead-Deerlodge National Forest is nationally renowned for its trout streams, large elk populations, and exceptional backcountry recreation opportunities. As the largest national forest in Montana, its island mountain ranges and diverse ecosystems provide key habitat linkages to the Greater Yellowstone Ecosystem for wide-ranging and imperiled species such as grizzly bear, Canada lynx, and wolverine. As a mecca for winter recreation, the forest has experienced an explosion in snowmobile use over the past decades, with more powerful modern machines able to travel further and faster into previously inaccessible areas. Catering to that use, the Forest Service’s 2009 revised forest plan permitted snowmobile travel across more than 2 million acres (or approximately 60% of the forest), including in sensitive wildlife habitat and favorite areas for skiers and snowshoers. Conservation groups successfully challenged that decision, leading to the first appeals court decision invalidating ORV designations that fail to satisfy the executive order duty to minimize resource damage and conflicts with other recreational uses. The seminal court opinion conclusively establishes the substantive nature of the agencies’ obligation to meaningfully apply and implement – not just consider – the executive order minimization criteria when designating each area and trail for ORV use.



*Miner Ridge in the Hellroaring Basin, Mt. Jefferson Roadless Area (credit: Forrest McCarthy)*

#### Timeline

- 2002: Forest Service initiates forest plan revision.
- January 2009: Forest Service finalizes revised [forest plan](#), acknowledging that “the unmanaged expansion of motorized uses[, including snowmobiles,] has resulted in resource damage, wildlife impacts, and competition and conflict between user groups,” yet still allocating over 60% of the forest to

***“What is required is that the Forest Service document how it evaluated and applied the [relevant] data on an area-by-area [and route-by-route] basis with the objective of minimizing impacts . . . .” WildEarth Guardians v. U.S. Forest Service, 790 F.3d 920, 931 (9th Cir. 2015).***

cross-country travel by snowmobiles. The plan did close recommended wilderness to motorized uses.<sup>41</sup>

- September 2010: Conservation groups file suit in federal court.
- June 2015: Ninth Circuit Court of Appeals invalidates the 2009 decision, finding no evidence in the record that the agency applied and implemented the minimization criteria when designating areas for snowmobile use. The decision specifically adopts the rationales from earlier district court decisions also invalidating BLM and Forest Service travel management decisions.  
*WildEarth Guardians v. U.S. Forest Service*, 790 F.3d 920, 929-32 (9th Cir. 2015).

### **Take-Aways**

- Agencies must apply and implement – not just consider – the minimization criteria on an area-by-area and route-by-route basis, providing a “granular” analysis that applies relevant data to show how areas and trails are designed to minimize impacts.
- Agencies may not rely on forest-wide reductions in total open acreage or route mileage, or on plan-wide data or general decision-making principles. Rather, the minimization criteria are concerned with the *effects* of area and trail designations.
- The minimization criteria apply with force to area allocations made in land and resource management plans, as well as to area and trail designations made in specific travel management plans.



***Evidence of illegal snowmobile use in the Mt. Jefferson Roadless Area  
(credit: Forrest McCarthy)***



***Denning wolverine on the Beaverhead  
Deerlodge (credit: Forrest McCarthy)***

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<sup>41</sup> A federal court upheld the decision to exclude motorized uses from recommended wilderness. *Beaverhead County Commissioners v. U.S. Forest Service*, No. CV 10-68-BU-SEH, 2013 U.S. Dist. LEXIS 108196 (July 22, 2013).

# Resource Management Plan & Travel Management Plan

## Richfield Field Office, Utah

### Bureau of Land Management

**B**LM’s Richfield Field Office encompasses some of the Utah’s most iconic and remote natural landscapes, including the rugged Henry Mountains and the famed Dirty Devil River. The region’s fragile desert soils and vegetation, irreplaceable archaeological sites, and scarce water resources are particularly vulnerable to degradation caused by ORV use. A federal court recently overturned BLM’s 2008 travel plan designating over 4,000 miles of mostly user-created ORV routes – enough miles to drive from Atlanta, GA to Anchorage, AK – for its failure to minimize impacts to those resources. While BLM’s Utah State Office has shown leadership by issuing additional guidance to assist the agency with travel planning for ORVs, that guidance falls short in its interpretation of the legal duty to minimize impacts.



*Red rocks in the Dirty Devil region (credit: Ray Bloxham/SUWA)*

#### Timeline

- October 2008: BLM finalizes its [resource management plan](#) (RMP) and [travel plan](#), designating over 4,000 miles of ORV routes, with approximately 400 stream crossings, and nearly 10,000 acres of areas open to cross-country ORV travel.
- November 2010: Conservation groups file suit in federal court challenging the RMP and travel plan.<sup>42</sup>
- August 2012: BLM’s Utah State Director issues an instruction memorandum (IM 2012-066) providing additional guidance for travel management planning.
- November 2013: Court invalidates travel plan where the record showed no analysis of specific impacts of designated ORV routes. *Southern Utah Wilderness Alliance v. Burke*, 981 F. Supp. 2d 1099, 1104-06, 1107-1110 (D. Utah 2013).

***“Acknowledging the minimization standards is not the same as applying them” and “[a]llowing [ORV] routes unless ‘significant, undue damage’ was ‘imminent’ is not the standard required by the minimization criteria.”***  
*Southern Utah Wilderness Alliance v. Burke*, 981 F. Supp. 2d 1099, 1104-05 (D. Utah 2013).

<sup>42</sup> The groups also challenged five other RMPs and travel plans finalized in 2008 that cover most of southern, central, and eastern Utah. The parties litigated the merits of the Richfield plan first as part of a “test-case” approach in the consolidated lawsuit. The remaining five challenges remain pending and unresolved.

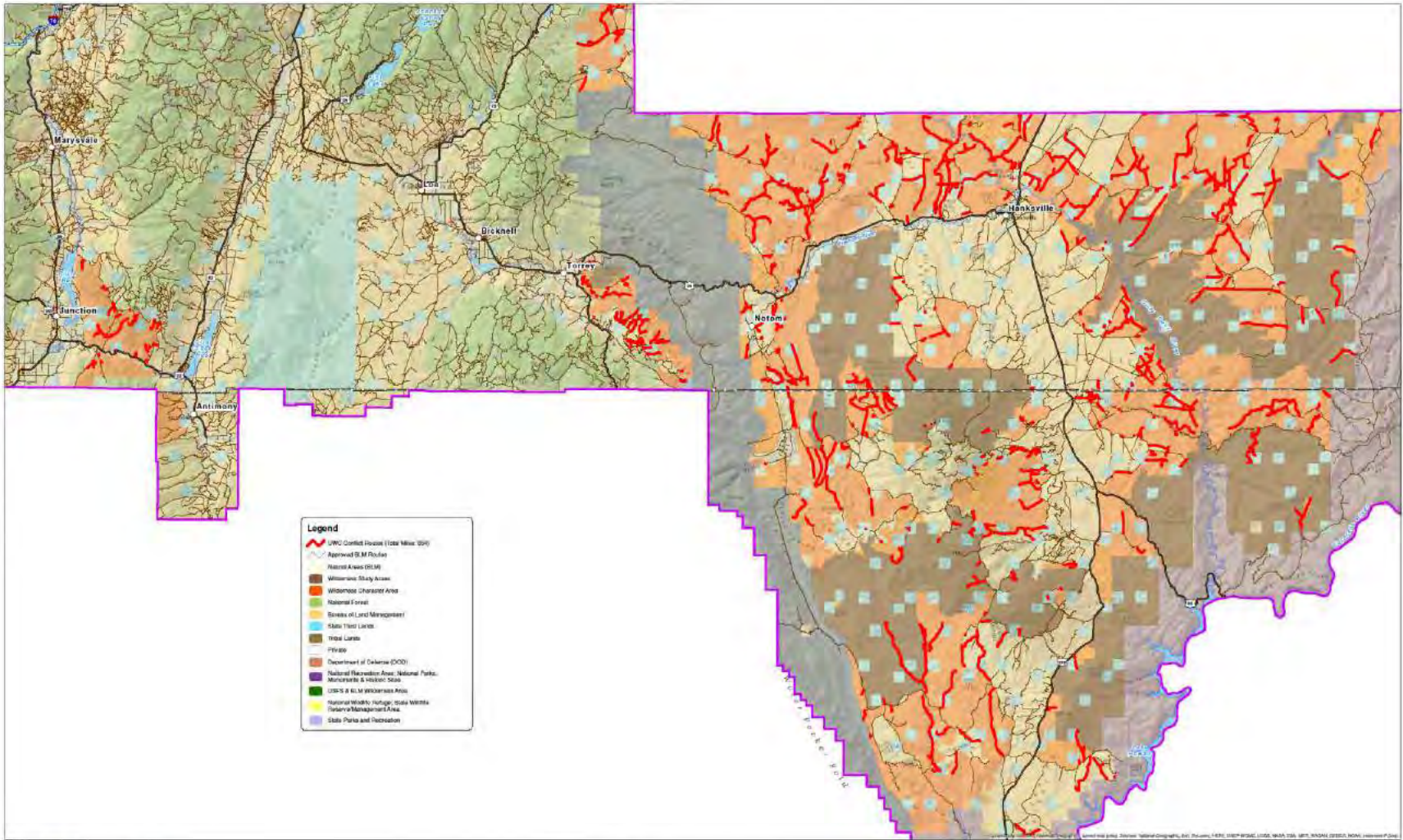
- BLM applied the wrong standard by designating existing ORV routes “unless significant undue damage to or disturbance of [natural or cultural resources] or other authorized uses of the public lands is imminent.”
- “[C]ryptic spreadsheet for each route segment” provided “no way to know how the BLM used or considered the information it listed” or “why or how the routes were chosen.”
- BLM’s finding that ORV route designations did not damage archaeological and cultural resources was unsupported where the agency failed to conduct on-the-ground inventories for those resources along designated routes, in violation of the National Historic Preservation Act. This holding is being appealed.
- May 2015: court orders BLM to perform detailed cultural resource inventories along *all* designated routes, apply the minimization criteria, and issue a new decision within 1-3 years, depending on the geographic area. *Southern Utah Wilderness Alliance v. Burke*, No. 2:12CV257DAK, 2015 U.S. Dist. LEXIS 67251 (D. Utah May 22, 2015) (remedy decision also on appeal).

### **Take-Aways**

- Agencies may not establish a presumption in favor of designating existing, often user-created routes for ORV use. Instead, they must correctly apply the minimization criteria and document how they did so in the administrative record.
- Absent on-the-ground inventories for cultural resources along designated ORV routes, agencies cannot satisfy their duty under the National Historic Preservation Act to ensure travel planning decisions do not adversely affect cultural resources, and likely cannot satisfy their duty under the ORV executive orders to minimize impacts to those resources.
- While IM 2012-066 shows leadership by BLM’s Utah Office and properly recognizes the need to “clearly demonstrate that the agency’s decision-making process [is] documented as part of the administrative record,” it generally falls short in providing accurate and adequate direction for application of the minimization criteria:
  - The IM improperly treats the minimization criteria as part of a balancing test: BLM staff is “to use the best available data and their best professional judgment when weighing the purpose and need of a route against resource and user conflicts.”
  - The IM confuses the duty to *minimize* impacts with an approach that would *mitigate* impacts: BLM staff is to identify “recommended mitigation measures to minimize user and resource conflicts for each alternative.”



***ORV damage in Factory Butte area (credit: Ray Bloxham/SUWA)***



### Richfield RMP

Route Conflicts within WSA, Wilderness Character, Natural Areas





# Resource Management Plan Amendment & Route Designation Project California Desert Conservation Area, West Mojave, California Bureau of Land Management

Southern California’s Mojave Desert is home to iconic Joshua trees, imperiled desert tortoise and bighorn sheep, “cryptobiotic” soil crusts, and other unique and fragile resources. In its 1976 designation of the California Desert Conservation Area, Congress recognized that those resources are “extremely fragile, easily scarred, and slowly healed” and “seriously threatened” by growing and inadequately managed recreational use, including ORV use. 43 U.S.C. § 1781(a). BLM, however, has continued to sanction rampant and irresponsible ORV use and associated resource damage, leading to a 2009 court order requiring the agency to go back and designate ORV routes in a way that satisfies its legal obligation to minimize impacts to sensitive desert resources and conflicts with other uses. Unfortunately, the agency’s 2015 proposal to *double* the mileage of its route network to over 10,000 miles utterly fails to satisfy that obligation and blatantly disregards the court’s order.



*Resident 50-year-old desert tortoise (credit: Peggy Kennedy)*

## Timeline

- March 2006: BLM finalizes [West Mojave Plan](#), designating over 5,000 miles of ORV routes, including in sensitive wildlife habitat.
- September 2009: Court invalidates route designations where “there is nothing in the

***“Minimize’ as used in the regulation does not refer to the number of routes, nor their overall mileage. It refers to the effects of route designations, i.e. the BLM is required to place routes specifically to minimize ‘damage’ to public resources, ‘harassment’ and ‘disruption’ of wildlife and its habitat, and minimize ‘conflicts’ of uses. Thus, simply because the BLM closed two-third of the routes evaluated does not, on its own, compel the conclusion that the minimization criteria were applied.”*** *Center for Biological Diversity v. Bureau of Land Management, 746 F. Supp. 2d 1055, 1080-81 (N.D. Cal. 2009) (footnote and citations omitted).*

record to show that the minimization criteria were in fact applied when O[R]V routes were designated” and “[t]he essence of the BLM’s position is that the Court should find that the BLM complied with [the minimization criteria] when it designated thousands of miles of O[R]V routes . . .

because the BLM says that it did.” *Center for Biological Diversity v. Bureau of Land Management*, 746 F. Supp. 2d 1055, 1071-83 (N.D. Cal. 2009) (quotations and citations omitted).

- January 2011: Court orders BLM to revise its route designations in compliance with the minimization criteria, to conduct interim monitoring, maintenance, and enforcement activities, and to submit quarterly reports documenting its progress. *Center for Biological Diversity v. Bureau of Land Management*, No. C 06-4884 SI, 2011 U.S. Dist. LEXIS 11764, at \*7-8, \*29-31 (N.D. Cal. Jan. 28, 2011).
- December 2014: BLM [field report](#) documents areas overrun with tens of thousands of ORVs over the Thanksgiving holiday weekend, including illegal incursions into wilderness areas and other sensitive biological and cultural sites.
- March 2015: BLM’s preferred alternative in its [draft supplemental EIS](#) would designate over 10,000 miles of mostly user-created routes – twice the mileage in the invalid 2006 plan – and, according to the agency’s own impact analysis, have the “largest magnitude of adverse impacts” to fragile desert resources, which the agency would then attempt to *mitigate*.



**“Closed” ORV route in portion of the Juniper Flats Area of Critical Environmental Concern designated to protect sensitive cultural resources (credit: Jenny Wilder)**

### **Take-Aways**

- Consideration or evaluation of impacts is not the same as *minimizing* those impacts, and agency methodology may not skew route designation decision-making in favor of ORV use.
- Minimizing resource damage and conflicts with other uses requires adequate enforcement and maintenance capability for the designated system.
- A strategy to *mitigate* impacts associated with an otherwise damaging route network does not satisfy the executive orders, which require the agency to *locate* designated routes to minimize impacts in the first instance.



**Nov. 31, 2014 dust storm following soil disturbance from extensive ORV use over the Thanksgiving holiday weekend at Coyote Dry Lake (credit: Peggy Kennedy)**

# National Monument Resource Management Plans

## Sonoran Desert and Ironwood Forest National Monuments, AZ

### Bureau of Land Management

**A**s crown jewels of our federal public lands, national monuments are established and managed to protect and restore their outstanding cultural, ecological, and scientific values for the benefit of current and future generations. The Sonoran Desert and Ironwood Forest National Monuments (NM) in Arizona – both managed by BLM – contain extraordinary and fragile biological and archaeological resources (known as “monument objects”) that are particularly vulnerable to damage caused by ORV use. BLM’s recent resource management plans (RMPs) for the two monuments carefully analyzed those impacts and limited ORV use to safeguard monument objects. While BLM’s application of the executive order minimization criteria fell significantly short, its methodology for assessing and designating ORV routes to protect monument objects could potentially be carried forward to comply with the executive order duty to minimize impacts and conflicts.



*Ironwood Forest National Monument (credit: Phil Hanceford)*

#### Timeline

- June 2000: President Clinton establishes the [Ironwood Forest NM](#) to protect outstanding geological, biological, and archaeological resources, including 800-year-old ironwood forest habitat that supports nearly 700 plant and animal species.
- January 2001: President Clinton establishes the [Sonoran Desert NM](#) to protect “a magnificent example of untrammelled Sonoran desert landscape,” including extraordinary saguaro cactus forests, packrat middens, and archaeological resources.
- 2007-2008: BLM conducts on-the-ground inventories for archaeological and cultural resources along all motorized and some non-motorized routes within the

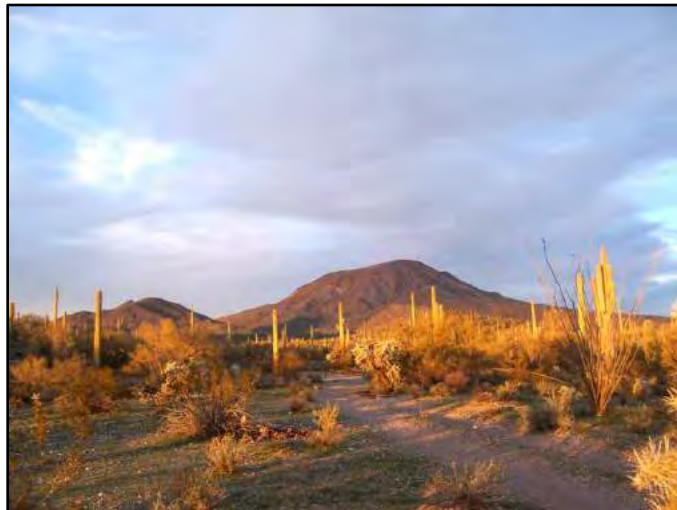
***“Motorized vehicle use off road has led to visible and persistent damage to the soils and vegetation of lands adjacent to primary access routes, to degradation of the natural and cultural resource objects for which the monument was designated . . . , and to degradation of the scenic values of the monument.”***  
[BLM Decision Memorandum: Temporary Route Closure, Sonoran Desert National Monument.](#)

Ironwood Forest NM.

- August 2007: BLM issues [temporary closure](#) of 88 miles of ORV routes in the Sonoran Desert NM to protect monument objects from “visible and persistent damage” and “degradation.”
- [September 2011: BLM releases Proposed RMP and Final EIS for Ironwood Forest NM.](#)
- June 2012: BLM releases [Proposed RMP and Final EIS](#) for Sonoran Desert NM, assessing the impact of each motorized route and route network alternative on monument objects and assigning a negligible, minor, moderate, or major impact, with “adequate protection” only where impacts are minor or negligible, or where moderate impacts can be mitigated to reduce them to minor (pp. 4-543 – 4-556, 4-561 – 4-568, 4-574 – 4-586, S-4 – S-5).
- September 2012: BLM finalizes [RMP](#) and associated [travel plan](#) for Sonoran Desert NM, which closes approximately 35% of existing routes to ORV use (travel plan, p. 4).
- February 2013: BLM finalizes [RMP](#) for the Ironwood Forest NM, which closes approximately 17 miles of existing routes and over 10,000 acres to ORV use to protect wildlife habitat and cultural resources (pp. 75-81).



***Multiple ORV routes causing resource damage leading to closures in the Sonoran Desert NM (credit: BLM)***



***Sonoran Desert National Monument (credit: Andy Laurenzi)***

### **Take-Aways**

- Agencies should obtain necessary, site-specific information – including on-the-ground cultural resource inventories – early in the planning process to inform decision-making about area and trail designations to minimize resource damage and recreational use conflicts.
- Agencies should evaluate the impacts of each ORV route and route network alternative on each relevant resource, and designate only those routes that fall below a defined threshold of minimal impacts.

# Winter Use Plan & Special Regulation

## Yellowstone National Park, Wyoming, Montana, Idaho

### National Park Service

**Y**ellowstone, the nation's first national park, is over 2.2 million acres and sees over 3 million visitors a year – the vast majority during the summer months. The Greater Yellowstone Ecosystem, with Yellowstone National Park at its core, is vaster still, largely intact, and provides critical habitat for grizzly bear, bison, wolverine, and myriad other species. Within the park, winter offers a unique opportunity to view wildlife, geysers, and Yellowstone's other natural wonders by ski, snowshoe, snowmobile, and "snowcoach" on unplowed roads leading into the interior. In the six decades since over-snow vehicles (OSVs) first entered the park, visitation has rapidly expanded – to as high as 140,000, and on average about 90,000 per winter season – primarily via snowmobile and snowcoach. With increasing use came calls for better management to protect natural soundscapes and pristine landscapes, while minimizing impacts to quiet recreation use, wildlife, and other park resources. To inform its winter management plan, NPS conducted monitoring and a number of scientific studies on air quality, soundscape, snowpack chemistry, and socioeconomic impacts. The agency's 2013 Special Regulation and Winter Use Plan represent over a decade of planning and public input and incorporate the best-available science to create a cleaner, quieter Yellowstone for the benefit of winter visitors and wildlife alike.



*Buffalo Ford on the Yellowstone River (credit: nps.gov)*

#### Timeline

- 1970s-1980s: Grooming begins, winter lodging opens, and visitation skyrockets, with original Master Plan encouraging OSV use and providing few restrictions.
- 1990s: Visitation continues to grow; ambient air quality issues become a major concern; and NPS completes first formal winter use plan (1990), with some new restrictions and a visitor use monitoring program to address concerns amid growing OSV use.

***“Alternative 4 was identified as the preferred alternative due to its potential to make the park cleaner and quieter than what has been authorized in past winter seasons, while at the same time allowing for increases in park visitation. Rather than focusing solely on numbers of OSVs allowed in the park, alternative 4 focuses on the impacts that result from OSV use . . . . This management framework is impact-centric, rather than vehicle number-centric, and is more consistent with the science of winter use, particularly the science related to natural soundscape preservation and wildlife disturbance.” [Yellowstone National Park Winter Use Plan/SEIS, p. 77.](#)***

- 2000: NPS attempts to drastically reduce OSV use in Yellowstone and Grand Teton National Parks amid growing concerns and evidence over safety, visitor enjoyment, air quality, natural soundscapes, and wildlife impacts.

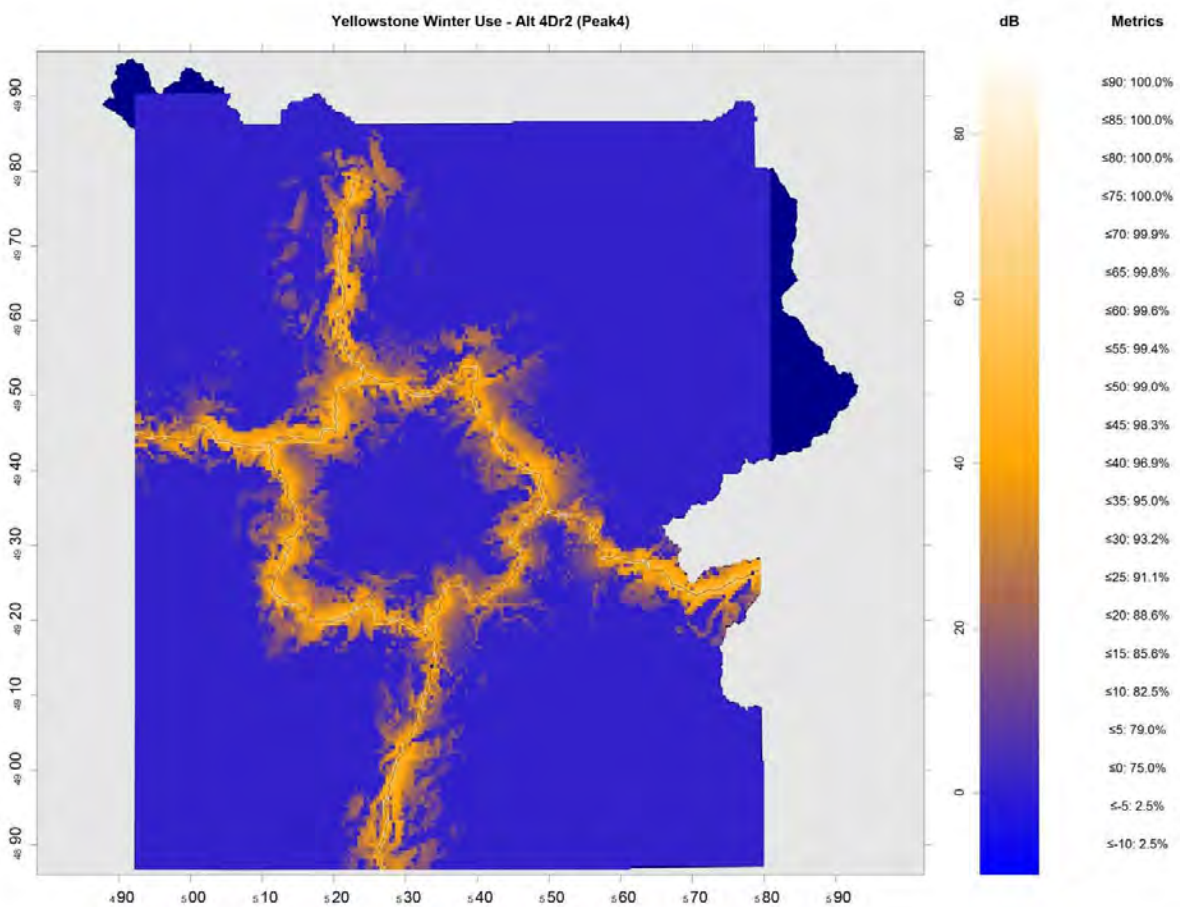


*Snowmobiles disrupting bison (credit: npr.org)*

- 2001-2010: Under public and litigation pressure, NPS develops a series of winter use plans implementing best-available technology standards and commercial guiding requirements for OSVs. Several plans are invalidated by the courts and remanded, with temporary plans put in place. NPS convenes a scientific advisory team to compile and conduct scientific studies on OSV use and park resources.
- 2013: NPS finalizes and publishes [Winter Use Plan/SEIS](#) and [Special Regulation](#) establishing:
  - Limits on OSV use – both snowmobiles and snowcoaches – based on number of “transportation events,” with adjustments to group size and vehicle type permitted based on impact (e.g., larger group size allowable if stricter, voluntary environmental performance standards met);
  - Restriction that OSV use be confined entirely to roads used by motor vehicles to minimize impacts to wildlife and other visitors;
  - 35mph speed limit to minimize noise and protect visitor safety;
  - Phased-in, performance-based best available technology standards for OSVs to reduce impacts while not being overly burdensome on operators; and
  - Adaptive management framework designed to maintain OSV impacts within permissible, identified range, and to gather additional data to inform future planning.

### **Take-Aways**

- To inform plan decisions, agencies should collect and summarize best available science, as well as develop and implement scientific studies as needed to fill information gaps.
- In appropriate circumstances, agencies should consider adaptive management approaches that tie ORV plan designations and restrictions to technological innovations and other factors affecting the type and extent of resource impacts.
- Agencies should assess the effects of ORV use at the site-specific and landscape scales, as well as in the short- and long-term (e.g., analysis of impacts on bison and elk addresses long-term population dynamics and range-wide displacement, in addition to shorter-term displacement and behavioral and physiological responses, [SEIS, pp. 216-219](#)).



**Noise simulation modeling depicting the distance snowmobile and snowcoach noise travels beyond groomed roads, and accounting for factors such as topography, vehicle speeds, vehicle group size, temperature, relative humidity, snow cover, and ambient sound levels (credit: NPS 2013)**

# ORV Management Plan & Special Regulation Cape Hatteras National Seashore, North Carolina National Park Service

Cape Hatteras, on North Carolina’s Outer Banks, was the nation’s first national seashore. The seashore’s dune, beach, and intertidal habitats provide both outstanding recreational opportunities and critically important nesting, breeding, feeding, and roosting sites for imperiled birds and sea turtles. Though ORV users account for less than 5% of seashore visitors, the demand for motorized access to Cape Hatteras beaches has skyrocketed over the past decades – with as many as 2,000 vehicles on the beaches each day during peak season. Growing ORV use has coincided with precipitous declines in bird species, damage to turtle nests and reduced hatchling survival, and public safety concerns. Following intense legal and political pressure to address these impacts, the Park Service promulgated a special regulation and ORV management plan based on the best available science and significant public input that is tailored to minimize impacts to wildlife, while preserving motorized beach access.



**Vehicles on Cape Hatteras National Seashore**  
(credit: [outerbanks.org](http://outerbanks.org))

## Timeline

- July 2007: In a criminal case finding a Cape Hatteras visitor guilty of operating a vehicle without due care, federal district court judge questions the legality of *any* ORV use absent a special regulation designating such use in accordance with executive order minimization criteria. *United States v. Vasile*, No. 2:07-M-1075-BO, 2007 U.S. Dist. LEXIS 52213 (E.D.N.C. July 17, 2007).
- October 2007: Conservation groups file a lawsuit in federal court challenging NPS’s failure to issue a long-term management plan and special regulation governing ORV use.
- December 2007: NPS publishes [notice of establishment of negotiated rulemaking advisory committee](#) to develop special regulation; after a dozen meetings, the committee of 30 representatives of stakeholder groups was unable to reach consensus, but provided insight for the development of the plan and special regulation.

***“[A]reas of high resource sensitivity and high visitor use will generally be designated as [vehicle-free areas] year-round or as seasonal ORV routes, with restrictions based on seasonal resource and visitor use. . . . The year-round designation of [vehicle-free areas] and ORV routes, in conjunction with the species management strategies described in the final plan . . . , will provide for species protection during both the breeding season, using the standard set of buffers . . . , and the nonbreeding season.”*** [ORV Management Plan, Record of Decision, pp. 4-5.](#)



- April 2008: Lawsuit resolved by consent decree establishing deadlines for completion of an ORV management plan and special regulation, and a revised interim management plan.
- December 2010: NPS finalizes [ORV management plan](#).
- January-February 2012: NPS publishes [special regulation](#) designating ORV routes and implements 2010 management plan, establishing:
  - Permit requirement and restrictions on permitted types and uses of ORVs;
  - Seasonal and night-time driving restrictions for wildlife protection; and
  - Temporary route closures to implement species management strategies including proactive pre-nesting closures and standard buffers around nesting and fledging sites, resulting in daily updates to an interactive beach access map on Google Earth and on-site signage.<sup>43</sup>



***Nesting loggerhead turtle crushed by ORV (credit: National Park Service)***

- 2012-2013: Record-breaking numbers of sea turtle nests recorded.
- June 2014: Court upholds management plan and special regulation in challenge by motorized access group. *Cape Hatteras Access Preservation Alliance v. Jewell*, No. 2:13-CV-1-BO, 2014 U.S. Dist. LEXIS 84596 (E.D.N.C. June 19, 2014).



***Crowds view turtle hatching (credit: National Park Service)***

### **Take-Aways**

- Minimizing impacts to wildlife and other resources, while continuing to permit ORV use, may require significant agency resources in the form of monitoring, enforcement, and iterative processes to ensure resource protection.
- Agencies should utilize the best available scientific information to inform application of the minimization criteria (e.g., management strategies for imperiled species based on U.S. Fish & Wildlife Service recovery plans, U.S. Geological Survey studies, state wildlife agency recommendations, and other peer-reviewed information).
- Agencies should provide significant opportunity for stakeholder and public participation early in the ORV designation process to identify impacts and conflicts, and strategies to minimize them.

<sup>43</sup> Pursuant to the National Defense Authorization Act for Fiscal Year 2015, Public Law No. 113-291, § 3057, the NPS recently adjusted wildlife buffers and is currently considering whether to make other modifications to the ORV management plan and special regulation. Due to this ongoing effort, the interactive map is not currently available, and the NPS is working to finalize a new format for delivering beach access information. See <https://www.nps.gov/caha/learn/management/2015ndaact.htm>.