For many people, the wilderness ideal is a vast and contiguous tract of unspoiled wild land. However, unknown to many is the fact that well over one million acres (404,700 ha.) and thousands of parcels of private or state-owned lands may be contained within U.S. designated wildernesses. These lands, termed wilderness inholdings, present challenges to wilderness advocates that require creative solutions and deliberate action due to serious concern about motorized access to inholdings, land speculation and threatened development, use of inholdings that are incompatible with wilderness, legal ambiguities of ownership rights, and multiple legal guidelines for wilderness managers.

In the western United States, land inholdings in wilderness are largely a result of five legislative acts: The 1872 Mining Law (17 Stat. 91), the 1862 Homestead Act (12 Stat. 392), the 1864 and 1870 Land Grant Acts (12 Stat. 503 and 26 Stat. 417), and the Alaska Native Claims and Settlement Act (ANCSA) (P.L. 92-203). Under the first four Acts, public lands were distributed to the private sector and states to advance westward expansion and development of the land; ANCSA distributed public lands to Alaskan Natives as a land settlement. Many inholdings in wilderness areas are quite large. Under the 1872 Mining Law, parcels were claimed in units of 20 acres (8 ha.), and 160 acres (64 ha.) were turned over to individuals under the Homestead Act. While these four acts distributed land to private individuals, the Land Grant Acts distributed land to States in 640-acre (259 ha.) parcels. ANCSA awarded a total land grant of 44 million acres (18 million ha.) to Alaskan Natives for renouncing all claims to the rest of the state (Zaslowsky 1986). The result on the landscape was a patchwork of private and state-owned land scattered across public lands.

In contrast with the western United States much of the land in the eastern part of the country was privately owned before public lands were established by the U.S. government. When the federal government decided to establish public lands in the eastern United States, it was difficult to do so without some private or state-owned lands being contained within them.

Thus, wildernesses throughout the United States were often established containing inholdings: it would have severely limited the National Wilderness Preservation System (NWPS) to have excluded such areas. Table 1 lists the acres of private and state land inholdings contained within designated wildernesses administered by the U.S. Forest Service (USFS), Bureau of Land Management (BLM), and National Park Service (NPS). Data on the acreage of inholdings within U.S. Fish and Wildlife Service (USFWS) wilderness areas is not available.

**Problems Associated with Wilderness Inholdings**

Inholdings present wilderness advocates and federal agencies with a number of problems, and these can be summarized into five main categories: motorized access across wilderness to inholdings, land speculation and threatened development of inholdings, use of inholdings that are incompatible with wilderness, legal ambiguities related to the property rights of inholding landowners, and multiple legal guidelines for wilderness managers.
Motorized Access to Inholdings

The use of motor vehicles on wildlands was a serious concern in the early wilderness movement and is one activity currently regulated by The Wilderness Act (TWA) (PL. 88-577) tried to guard against. Increasingly, agencies are granting motorized access through wilderness to inholdings based more on landowner convenience rather than the adequacy of nonmotorized access for the inholder. Thus, there is an increasing amount of motor vehicle traffic within the NWPS lands. In some cases, motorized access through wilderness has been allowed when travel by foot or horse would be adequate for reasonable use of the property by the inholder. In addition to impacts upon the biophysical characteristics of wilderness, motorized intrusions are damaging to the wilderness experiences of users. For example, an inholder in Oregon’s Kalmiopsis Wilderness has requested motorized access to log, mine, and develop his inholding. During the process of evaluating the developmental potential of his land, the inholder, accompanied by surveyors and appraisers, repeatedly drove his jeep across the Kalmiopsis Wilderness to access his property (see Figure 1). Not only did he inflict severe damage to the land and the character of the wilderness, but it is also possible that he spread (via the mud tracked in on his tires) a fungus, found along 70% of the access route, that preys on Port Orford cedar (Siskiyou Regional Education Project and Wilderness Watch v. U.S. Forest Service, suit filed in 1998). While the USFS has not yet granted motorized access, should it be granted, severe damage to the land, native species, and wilderness character would occur.

Land Speculation and Threatened Development of Inholdings

Land speculation and development are not words typically associated with wilderness, but some inholders have recently begun to employ such practices to make a large profit off of their land by threatening to develop or sell its property. For example, an inholder in the West Elk Wilderness of Colorado transported materials via helicopter to his inholding and then began construction of a 3,450-square-foot house in the heart of the wilderness (Figure 2). He threatened further development on his inholding unless the USFS either paid a large sum of money for the property or offered a lucrative land exchange. To prevent incompatible development within the West Elk Wilderness, the USFS exchanged a 105-acre (42-ha.) plot near Telluride, Colorado, worth $4.2 million for the 240-acre (97-ha.) inholding worth an estimated $240,000 (Clifford 2000). Unfortunately, this is not an isolated case; more “opportunistic” individuals have and are attempting the same extortive actions.

Incompatible Use of Inholdings

Designated wildernesses are the most protected public lands in the United States. Incompatible use of inholdings can impact the ecological health, the aesthetic value, and the character of the adjoining wilderness. Incompatible uses can include major building construction, airfield use, mining, and introduction of exotic species (e.g., fish stocking). For example, in 1999 an inholder in Montana’s Absorka-Beartooth Wilderness, who acquired his inholding through a patented mining claim, stated that if the USFS did not buy the mining rights to his inholding, he would take advantage of the mineral deposits and mine it himself. After the USFS refused to purchase the mining rights, the inholder then requested an 8.6-mile road be built through the wilderness to his inholding, which would enable him to transport the minerals from his property. The USFS’s decision to deny such a proposal was upheld in federal
district court. However, the inholder has recently proposed to make several low-flight helicopter trips to transport the minerals from his property—an obviously disturbing impact to the quality of the Absorka-Beartooth Wilderness.

**Legal Ambiguities Related to the Property Rights of Inholding Landowners**

Access to wilderness inholdings is subject to the restrictions imposed by TWA and the legislation that designated that particular wilderness. In the absence of any other legislation relevant to a particular wilderness, section 5(a) of TWA serves as the legal basis regarding land inholdings contained within a wilderness. TWA directs agencies to offer adequate access or an exchange of lands. Subsequent wilderness legislation relevant to inholdings sometimes only included provisions to grant adequate access (not necessarily motorized) if it is requested, but the legislation does not preclude the agencies from offering a land exchange. In addition to TWA, the most important pieces of wilderness legislation relevant to land inholdings are the Eastern Wilderness Act (EWA) (P.L. 93-622), Alaska National Interest Lands Conservation Act (ANILCA) (P.L. 96-487), and California Desert Protection Act (CDPA) (P.L. 104-433), which are listed in Table 2, along with key legal provisions related to inholdings.

While all four federal agencies managing wilderness under the NWPS are bound by TWA and other relevant legislation, agencies promulgate their own regulations or policies that serve as the agencies’ interpretation of those laws. While both regulations and policies serve as the foundation for the agencies’ management of wilderness, regulations are legally binding, whereas policies are only administrative guidelines. However, should a legal issue be brought before the courts and there is found to be a conflict between the legislation and agency regulations or policies, the legislation has precedence over the regulations or policies of the agencies. Table 3 lists the federal agency regulations and policies concerning wilderness inholdings.

Wilderness legislation, regarding inholdings, contains inconsistent language that has led to multiple interpretations by federal agencies. These varied interpretations have caused difficulties both in determining the type of access to be permitted to inholdings and the intended scope of some legislation. Two

### Table 2—U.S. Legislation Concerning Privately Owned and State-Owned Land Inholdings in NWPS Wilderness Areas.

<table>
<thead>
<tr>
<th>Legislation (Public Law and Section Number)</th>
<th>Statutory Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Wilderness Act (P.L. 88-577 § 5[a])</td>
<td>“In any case where State-owned or privately owned land is completely surrounded by national forest lands within areas designated by this Act as Wilderness such State or private owner shall be given such rights as may be necessary to assure adequate access to such State-owned or privately owned land by such State or private owner and their successors in interest, or the State or privately owned land shall be exchanged for federalally owned lands in the same State of approximately equal value...”</td>
</tr>
<tr>
<td>The Eastern Wilderness Act (P.L. 93-622 § 6 [b] [3])</td>
<td>“The Secretary of Agriculture may acquire such land or interest without consent of the owner or owners whenever he finds such use to be incompatible with the management of such area as wilderness and the owner or owners manifest unwillingness, and subsequently fail, to promptly discontinue such incompatible use.”</td>
</tr>
<tr>
<td>The Alaska National Interest Lands Conservation Act (P.L. 96-487 § 1110 [b])</td>
<td>“The State or private owner shall be given by the Secretary adequate and feasible access for economic and other purposes subject to reasonable regulations issued by the Secretary to protect the natural and other values of such lands.”</td>
</tr>
<tr>
<td>The Alaska National Interest Lands Conservation Act (P.L. 96-487 § 1323)</td>
<td>(a) “...the Secretary of Agriculture shall grant access to non-federally owned land within the boundaries of the National Forest System as the Secretary deems adequate to secure to the owner the reasonable use and enjoyment thereof...” (b) “...the Secretary of the Interior shall provide such access to non-federally owned lands surrounded by public lands managed by the Secretary under the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-82) as the Secretary deems adequate to secure to the owner the reasonable use and enjoyment thereof...”</td>
</tr>
<tr>
<td>The California Desert Protection Act (P.L. 104-433 § 708)</td>
<td>“The Secretary shall provide adequate access ... which will provide the owner of such land or interest the reasonable use and enjoyment thereof.”</td>
</tr>
</tbody>
</table>
Section 5(a) of TWA directs agencies to provide adequate access or offer a land exchange for the inholding. This section of the legislation has been interpreted a couple of different ways. Some have implied that the appropriate federal agency must, if an exchange offer is not acceptable to the property owner, make adequate access available. Conversely, if the property owner does not see the granted access as adequate, then an offer for exchange must be made. However, a 1980 U.S. attorney general opinion interpreted the section to mean that the appropriate federal agency has the option of choosing either an exchange or granting access to the inholding, and once one of the two offers has been made, the agency has satisfied its responsibility (Civiletti 1980). Also, as section 5(a) states, regardless of which option is chosen, the action is subject to the preservation of wilderness character.

Table 3—Agency Regulations and Policies Concerning Privately Owned and State-Owned Land Inholdings in Wilderness Areas.

<table>
<thead>
<tr>
<th>Federal Agency Regulation or Policy</th>
<th>Regulation or Policy Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureau of Land Management (43 CFR 6305.10)</td>
<td>“If you own land completely surrounded by wilderness, BLM will only approve that combination of routes and modes of travel to your land that—(1) BLM finds existed on the date Congress designated the area surrounding the inholding as wilderness, and (2) BLM determines will serve the reasonable purposes for which the non-Federal lands are held or used and cause the least impact on wilderness character.”</td>
</tr>
<tr>
<td>U.S. Fish and Wildlife Service (50 CFR 35.13)</td>
<td>“Rights of States or persons and their successors in interest, whose land is surrounded by a wilderness unit, will be recognized to assure adequate access to that land. Adequate access is defined as the combination of modes and routes of travel which will best preserve the wilderness character of the landscape. Mode of travel designated shall be reasonable and consistent with accepted, conventional, contemporary modes of travel in said vicinity. Use will be consistent with reasonable purposes for which such land is held.”</td>
</tr>
<tr>
<td>U.S. Forest Service (36 CFR 251.110 [c])</td>
<td>“… as appropriate, landowners shall be authorized such access as the authorized officer deems to be adequate to secure them the reasonable use and enjoyment of their land.”</td>
</tr>
<tr>
<td>National Park Service (Director’s Order #53 §10.4)</td>
<td>“Except as specifically provided by law, there will be no permanent road, structure or installation within any study, proposed, recommended, or designated wilderness area. This includes the installation of utilities. (See the Wilderness Act 16 USC 23). The NPS will not issue any new right-of-way permits or widen or lengthen any existing right-of-way in study, proposed, recommended, or designated wilderness areas.” (At present, NPS policies target only right-of-ways to wilderness inholdings.)</td>
</tr>
</tbody>
</table>
| Department of Interior (USFWS, NPS, & BLM) Regulations for Wilderness inholdings in Alaska (43 CFR 36.10) | (a) This section sets forth the procedures to provide adequate and feasible access to inholdings within areas in accordance with section 1110(b) of ANILCA. As used in this section, the term: (1) Adequate and feasible access means a route and method of access that is shown to be reasonably necessary and economically practicable but not necessarily the least costly alternative for achieving the use and development by the applicant on the applicant’s nonfederal land or occupancy interest. ANILCA is one of the most important pieces of wilderness legislation since TWA of 1964. After a decade of legislative debate, more than 104 million acres (42 million ha.) of federal lands in Alaska were preserved as national parks, wildlife refuges, and conservation areas, and 56.5 million acres (22.9 million ha.) of those lands were designated as wilderness (The Wilderness Society 2001). Just as important as the designation of protected areas, the ANILCA specified management directives for all 224 million acres (91 million ha.) of federal land in Alaska.

Two sections of ANILCA are particularly relevant to wilderness inholdings—Section 1110 and Section 1323. Subsection 1110(b) specifically addresses access to wilderness inholdings in Alaska, regardless of the managing federal agency and declares that “adequate and feasible access for economic and other purposes” shall be provided “subject to reasonable regulations issued by the Secretary to protect the natural and other values of such lands.” Since approximately half of our nation's designated wilderness is in Alaska, including the majority of National Park and Wildlife Refuge Wilderness, 1110(b) is an exceptionally important subsection of law.

Section 1323(a) directs the secretary of agriculture to provide adequate access to land inholdings located within the national forest system that will secure the owner the reasonable use and enjoyment of the inholding. The USFS has interpreted Section 1323(a) to apply to wilderness nationwide, including Alaska, and consequently, they have adopted it as their policy governing access to wilderness inholdings. However, Subsection 1110(b) applies to all designated wildernesses in Alaska, including national forest wilderness; therefore, current USFS policies regarding access to wilderness inholdings should be in accordance with Subsection 1110(b) in Alaska.
There is a parallel controversy with Subsection 1323(b) that directs the secretary of the interior to provide access to “public lands managed by the Secretary under the Federal Land Policy and Management Act of 1976” (FLPMA) (P.L. 94-579) that will secure to the owner the reasonable use and enjoyment of the inholding. FLPMA dealt exclusively with management direction for all BLM lands in the United States, and the BLM has determined that Subsection 1323(b) has nationwide scope. However, ANILCA clearly states that when the phrase “public lands” is used within ANILCA, it is defined as public lands in Alaska and suggests that Subsection 1323(b) should be applied to inholdings in BLM managed lands in Alaska. While some BLM lands are being reviewed for wilderness designation, there are currently no BLM-administered wildernesses within Alaska. For a detailed discussion of the controversies surrounding Section 1323, see Montana Wilderness Association v. USFS, 1981 and Interior Board of Land Appeal, 83-356, 1984.

Not only is clarification needed for the application of ANILCA to wilderness inholdings, but definitions are also needed for the type of access to be allowed. Under ANILCA, inholders will be granted “… adequate and feasible access for economic and other purposes…” of the inholding. Similar language can also be found within TWA and CDPA. Such descriptive language becomes a legal problem since adequate, feasible, and economic purposes are not defined. Disparate interpretations of adequate, feasible, and economic exist among wilderness managers, and that can lead to inconsistent management of wildernesses. For example, in a BLM-administered wilderness, motorized access may be deemed adequate, whereas in a similar situation in a USFS-administered wilderness, only horseback or foot travel may be allowed.

Multiple Guidelines for Wilderness Managers

The variety of legislation relevant to wilderness inholdings has created some confusion as to which is applicable for a particular wilderness. Since there are numerous pieces of wilderness legislation, and some legislation regarding access to wilderness inholdings may not be applicable to all agencies managing wilderness, access is often regulated differently depending on which agency administers a particular wilderness. Different directives for access to wilderness inholdings are found not only interagency, but also intraagency. For a particular agency, the permitted access to wilderness inholdings in Alaska under ANILCA may be substantially different from wilderness inholdings in the lower 48 states, where a wilderness is managed by the same agency.

Solutions to Problems with Wilderness Inholdings

Some possible solutions include clarifying and strengthening wilderness legislation and agency regulations regarding wilderness inholdings, supporting land trusts, and, in extreme cases, allowing condemnation of lands. Combining creative solutions with public support ideally will result in a resolution of the dilemmas encountered when wildernesses contain public and state land inholdings.

“… over one million acres and thousands of parcels of private or state-owned lands may be contained within U.S. designated wildernesses.”
“...with a significant number of wildernesses containing inholdings, timely and effective solutions to the problems surrounding wilderness inholdings are needed.”

**Adherence to Wilderness Legislation and Legal Clarification**

While, in most cases, agencies managing designated wilderness are required to grant access (not necessarily motorized access) to inholdings, the access granted is conditional and depends upon the wilderness designation legislation and TWA. Thus, agencies have an opportunity to practice wise stewardship by denying any access that is contrary to fundamental wilderness principles (Figure 3). For example, an inholder in the Absorka-Beartooth Wilderness recently requested that the USFS construct an 8.6-mile road to his inholding and grant motorized access. The USFS denied the request based on the concern for the preservation of the wilderness character. The USFS decision was upheld in a federal district court. We recommend that managers prioritize wilderness protection over the convenience of inholders, and existing legislation will enable them to preserve wilderness character in most cases.

**Land Trusts**

Ultimately, it may be advantageous for agencies managing wilderness to purchase all private and state land inholdings in order to preserve wilderness character in the designated area. However, such an approach is expensive, and, consequently, agencies are unable to afford to purchase all wilderness inholdings. In the event that an agency is unable to purchase an inholding from a willing seller, land trusts—organizations devoted to acquiring lands for conservation—can purchase the land and hold it in the spirit of wilderness stewardship, or sell the land to the agency when more public funding for land purchases is available. Land trusts have traditionally been an effective tool in combating problems with wilderness inholdings. For example, since its origination in 1992, The Wilderness Land Trust (2002) has acquired 180 private inholdings in 35 designated wildernesses.

**Condemnation of Wilderness Inholdings**

The Fifth Amendment of the U.S. Constitution allows federal agencies to condemn lands if the lands are for public use. TWA does permit condemnation of lands, but does not grant this authority to federal agencies. Instead, it is stipulated in Section 5(c) of the act that authorization by the U.S. Congress is necessary to condemn lands within wilderness boundaries. With the passage of the EWA, 16 national forest wildernesses were established east of the 100th meridian, and the USFS was authorized to condemn inholdings in these particular wildernesses if its use was found to be incompatible with the protection of the wilderness and the owners were unwilling to discontinue the incompatible use. No inholdings have been condemned under the EWA. While condemnation as a way for managers to solve a problem is a last resort, it may be necessary for the preservation of the wilderness character.

**Conclusion**

The management of designated wildernesses in the NWPS has often been an arduous and delicate task. As outlined in this article, the five types of problems stemming from wilderness inholdings certainly raise concerns among wilderness managers. For many wildernesses, there is potential for a few inholdings to shape the character of the entire wilderness. Thus, with a significant number of wildernesses containing inholdings, timely and effective solutions to the problems surrounding wilderness inholdings are needed.

**REFERENCES**


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