

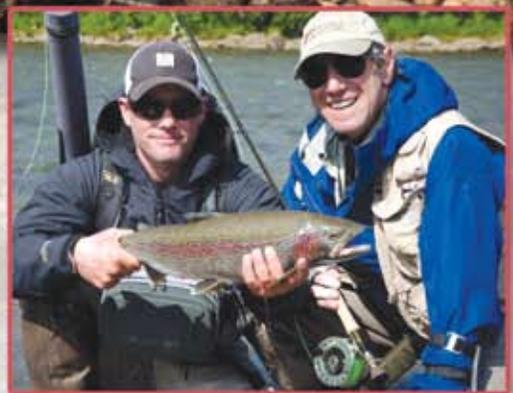
I N T E R N A T I O N A L

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Wilderness Land Trust

Two Decades Keeping Wilderness Wild

BY PAUL F. TORRENCE

The U.S. National Wilderness Preservation System (NWPS) includes more than 110 million acres (44.5 million ha) – an area greater than that of Denmark, Switzerland, or the state of California (Anon 2011a; 2011b). Many more lands deserve protection under the Wilderness Act, thus wilderness advocates understandably focus on these. But conservationists must recall that wilderness designation by Congress does not mean that wilderness will remain wilderness forever (Hendee and Dawson 2001). The grand architect of the Wilderness Act, Howard Zahniser, understood that the forces that destroy wilderness must be constantly confronted and resisted (Zahniser 1969).

There is one specific menace that can almost instantly undermine the ecological fabric of a wilderness and erode the values embraced by the 1964 U.S. Wilderness Act: inholdings – once federal or private lands that are now relics from past mining and timber claims, homestead acts, and railroad grants (Tanner 2002).

The NWPS is perforated by some 400,000 acres (161,943 ha) of private lands that are termed “inholdings.” In the vast majority of cases, the owners are content to allow their lands to coexist in the matrix of wilderness. Nonetheless, these

inholdings can be ticking time bombs that can have a negative impact on wilderness characteristics and values (Acalady 2000; Binkly 2003; McMillion 1999; Peterson 2010; Quillen 2010; Simon et al. 1998; Staff 1995; Steubner 1998; Zaitz 2010).

Wilderness Degradation Perils

Wilderness intrusions that degrade viewsheds, introduce noise or water pollution, shut down trails, generally erode wilderness solitude, or diminish spiritual, scientific, or recreational attributes are understood by most observers. Nevertheless, wilderness advocates and conservationists may not always be fully cognizant of the biological ramifications of even a small human modification within a wildland matrix.

Edge effects (Leopold 1933), the outcomes on an ecosystem of juxtaposing two different environments, are a common result of human development in wildlands. Although edge effects often result in a local biodiversity increase, their pervasiveness in fragmented ecosystems of the modern world usually work to decrease overall biodiversity (Murcia 1995; Ries et al. 2004; Woodroffe and Ginsburg 1998; Lovejoy et al. 1989).

An arresting example of edge effects comes from a study of preserved redwoods on the northern California coast (Russell, McBride, and Carnell 2000). Industrial logging operations clear-cut the forest right up to the border of these state and federal government preserves. Abiotic factors such as wind and temperature changes in turn precipitated biotic changes in vegetation and wildlife up to 219 yards (200 m) into the uncut forest. This invasion resulted in dramatic losses of core forests. For instance, a grove of 2,449 acres (991 ha) in Del Norte Redwood State Park had 1,525 acres (617 ha) affected by edge, so that remaining core forest was just 924 acres (374 ha), a reduction of 62%. Even a much larger 12,822-acre (5,189 ha) grove in Redwood Creek North retained just 65% of core forest after edge effects were taken into account.

Edge effects can possess even greater invasiveness. A recent study (Ewers and Didham 2008) found a detrimental



Figure 1 – James Peak Wilderness, Colorado, Arapaho and Roosevelt National Forests. Photo by WLT staff.

effect on beetle populations at a distance of 1 kilometer (0.62 mile) from the edge.

Edges and habitat fragmentation (Soulé, Alberts, and Bolger 1992) are a bonanza for mesopredators (middle predators) such as rats, skunks, raccoons, opossums, foxes, gulls, ravens, crows, feral cats, and feral dogs. Edge habitat creation thus aids and abets mesopredator release, which may already be highly problematical where apex predators (cougars, wolves) have been removed, diminished, or had their predatory behaviors altered by human disturbances (Soulé 2010). Moreover, many human developments provide energy subsidies to the mesopredators, corvids, and raptors. Tipping of the ecological balance like this spells trouble or doom for many interior forest species: victims include reptiles, amphibians, beneficial insects, small mammals, waterfowl, as well as nestling and juvenile birds (Crooks and Soulé 1999; Terborgh and Estes 2010).

Wherever inholdings persist, the consequences of edge effects, mesopredator release, disproportionate energetic subsidies, and the like increase the vulnerability of the “untrammeled” quality of wilderness.

Speculation Fuels the Problem

In some hands, private inholdings within designated wilderness areas have spawned a growing number of real estate speculations and proposed developments. These threats create a consuming task for public lands managers, constitute an intolerable drain on the meager budget available for agency land purchases, and reveal the fragile protection of far too many wilderness areas. Controversial and potentially highly damaging development schemes have been advanced in an array of landscapes such as Colorado’s West Elk

Wilderness, Montana’s Absaroka Bear-tooth Wilderness, Arizona’s Arrastra Mountain Wilderness, Oregon’s Kalmiopsis Wilderness, and even Colorado’s Black Canyon of the Gunnison National Park (Acalady 2000; Binkly 2003; McMillion 1999; Peterson 2010; Quillen 2010; Simon et al. 1998; Staff 1995; Steubner 1998; Zaitz 2010).

A Real Estate Agent for Wilderness Preservation

Fortunately, the U.S. Wilderness Act provides that any private inholdings purchased by or donated to the U.S. government may be incorporated into a wilderness area without an additional act of Congress. Funds for such federal acquisitions generally come from the Land and Water Conservation Fund or Federal Land Transfer Facilitation Act (FLTFA).

There is just one non-profit organization that focuses only on acquisition of wilderness inholdings from willing sellers and their transfer to the United States: the Wilderness Land Trust (WLT). The WLT fulfills a crucial role in the process of securing a “Wilderness Forever Future” because it can often act when federal funding is not immediately available. Moreover, government agencies have a lot of issues on their plates, often making it difficult to prioritize acquisition of inholdings. Many inholding transactions involve challenging

questions about access or mining activity. Some properties require restoration of human uses and structures back to wildland. Owners wary of the federal government and bureaucratic time lines gain great benefit from the



Figure 2 – Wild Sky Wilderness, Washington, Mount Baker-Snoqualmie National Forest. Photo by Bill Pope.

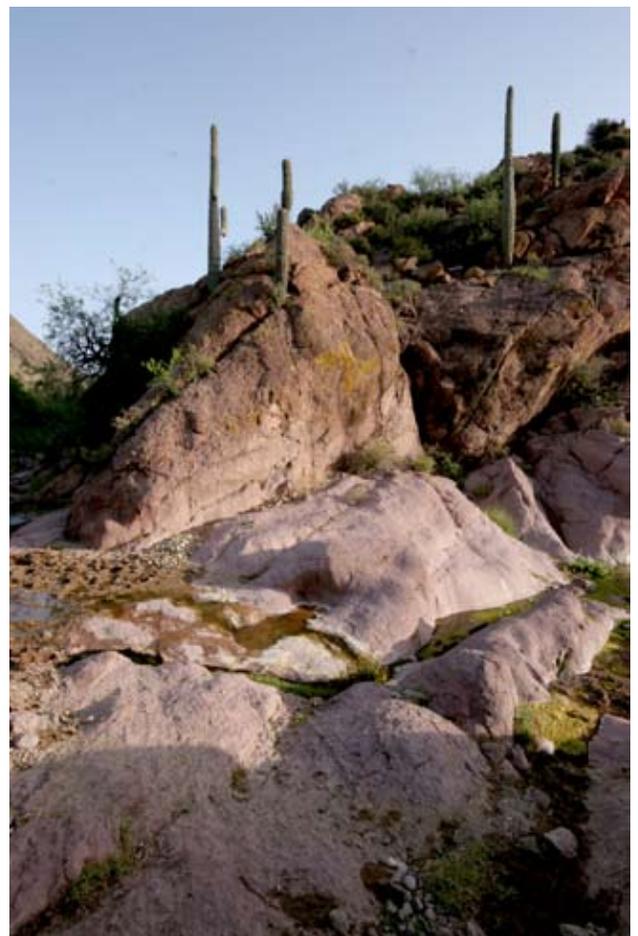


Figure 3 – Hells Canyon Wilderness, Hells Canyon National Recreation Area, Oregon and Idaho. Photo by Mike Stoklos.

businesslike approach to real estate deals by a private nonprofit such as the WLT. The WLT strives to make deals simple and timely for landowners, and then takes on the responsibility of transferring the property to the federal government for permanent wilderness protection. Moreover, because WLT deals exclusively with wilderness

inholding real estate, the staff has a specific, in-depth knowledge of the issues and concerns that this special group of property owners face. Since its inception 20 years ago, WLT has completed 378 real estate transactions, protecting more than 36,652 acres (14,839 ha) in 82 designated and proposed wilderness areas in Arizona, California, Colorado, Idaho, New Mexico, Montana, Nevada, and Washington.

Early Days

The WLT was the brainchild of Coloradan Jon Mulford in reaction to a specific threat to Colorado wilderness lands posed by real estate developer Tom Chapman (Simon et al. 1998; Staff 1995). Beginning in 1992, WLT was much like a local land trust. Over the next decade, it expanded beyond Colorado to other western states in the United States. In 2003 the mission of the WLT was modified to include the acquisition of inholdings within proposed wilderness, as well as designated wilderness, strengthening relationships with a broader constituency and allowing for completion of acquisitions before they became problematic in the wilderness designation process.

WLT's financial model consists of strong relationships with foundations, large donors, and the profits from periodic sales of lands to the federal government. It has pursued as a target a split of 60% of revenues from annual giving and 40% from land sales. In 2010 WLT initiated a Wilderness

Opportunity Fund that seeks to build a \$3 million revolving asset base, available for unexpected and/or emergency acquisitions. WLT's successes have been greatly dependent on a small, exceptionally gifted, and effective staff that is dedicated to its mission.

How Are Wilderness Inholdings Prioritized?

Given the vast acreage and number of inholdings in so many wilderness areas, how can an organization with restricted assets decide which lands to purchase? An algorithm was devised to accomplish that (Pearson and Wallace 1994). This methodology assigns a numerical score to wilderness inholding parcels on the basis of development, ecological, and social factors. A total of 17 criteria are evaluated and assigned scores of 1, 2, or 3, with 1 being less of a threat and 3 being more of a threat. The sum of scores for each parcel provides a priority ranking with the highest priority property achieving the largest total. This tool is now nationally known and is widely accepted as the standard for evaluating and prioritizing the acquisition of wilderness inholdings.

Landscape Diversity

WLT endeavors have safeguarded ecosystems ranging from the hottest and driest landscape in North America, Mohave Desert's Death Valley, to Washington State's Glacier Wilderness, where unimaginable snowfall occurs. The shores of the Pacific Ocean have benefited from the stewardship efforts of the WLT, as have high altitude meadows of the distant Rocky Mountains.

Volcanic Legacies – In New Mexico's El Malpais (badlands) National Monument Wilderness Study Area, where jagged lava flows dominate the land, the WLT acquired an old 320-acre (130 ha) homestead called Hoya de Cibola, with its own collapsed lava



Figure 6 – Mokelumne Wilderness, Eldorado National Forest, California. Photo by Jeff Davis.



Figure 4 – King Range Wilderness, Lost Coast, California, King Range National Conservation Area. Photo by WLT staff.

tube. Hundreds of miles farther north, in the Lassen Volcanic National Park, WLT collaborated with the Nature Conservancy to acquire and then donate to the National Park Service a rare high altitude fen within Lassen Volcanic Wilderness. Known as Spencer Meadows, this land is part of the Mill Creek watershed that possesses the highest levels of biotic integrity of the 100 major watersheds in the Sierra Nevada. This parcel was rescued by WLT from sale for conversion to a commercial campground. It now remains wild as part of one of the most biodiverse areas of California, with more than 700 flowering plant species and 259 vertebrate species.

From Coastal to Montane Ecosystems – WLT activities have encompassed terrain from Pacific Ocean surf to the literally breathtaking high altitudes of the Rocky Mountains. Thus, acquisition of inholdings in the King Range Wilderness on the northern California coast added key additional protection to the “Lost Coast,” the longest stretch of undeveloped coastline in the United States outside Alaska. In Colorado’s Rocky Mountains, WLT teamed up with the National Park Trust to procure a 10-acre (4 ha) patented mining claim perched on a lofty ridge within the Maroon Bells-Snowmass Wilderness, one of the most spectacular vistas in the United States. Also part of the High Elk Corridor conservation effort, this tract is no longer vulnerable to development. Similarly, in collaboration with the Colorado Conservation Trust, WLT purchased a 320-acre (130 ha) private inholding in the James Peak Wilderness, thereby protecting the entirety of Echo Lake, key riparian areas, and establishing legal access to the wilderness’s extensive trail system. Indeed, WLT’s acquisitions have resulted in the protection of widely loved icons of splendid Colorado wilderness such as

Spanish Peaks, Sangre de Cristo, Raggeds, Hunter-Fryingpan, Holy Cross, Weminuche, Mount Sneffels, Lizard Head, Mount Massive, Indian Peaks, Flat Tops, and Eagles Nest.

Wilderness Expansion

WLT has been able to expand existing designated wilderness through the Section Six process of the 1964 Wilderness Act, which allows the secretary

of the interior to accept donated land adjacent to designated wilderness and add the land to the already designated wilderness without further legislation. In a particularly outstanding example, the Trust donated to the Bureau of Land Management a 2,430-acre (984 ha) ranch west of Ridgecrest, California, thereby expanding the Sacatar Trail Wilderness and connecting it to the Domeland Wilderness. Thus, a single acquisition served two far-reaching ends: wilderness expansion and wildlands connectivity (Soulé 2010).

The Environmental Group That Bought a Gold Mine

Sometimes, the WLT finds itself in unexpected situations. This was the case when it became the temporary owner of the Big Horn Mine, a gold mine not far from the heart of Los Angeles. Located in the Sheep Mountain Wilderness of the Angeles National Forest, the mine has long been a favorite easy day-hike destination because of its historical and cultural values as well as impressive views. However, the rapidly escalating price of gold assured that the mine would be reopened, creating huge compatibility issues with the surrounding wilderness as well as a shutdown of public access and the possible conver-



Figure 5 – North Fork Owyhee River Wilderness, Idaho. Photo by John McCarthy.

sion into a recreational resort. WLT was able to acquire the mine and its estimated 262,000 ounces (7428 kg) of gold in 2007 when the price of the lustrous metal was \$350 an ounce, a fifth of what it is selling for now. Installation of a gate to prevent human entry but allow entry of the healthy bat populations enabled the 277-acre (112 ha) property to be transferred in 2011 to the United States as part of the Sheep Mountain Wilderness.

Death Valley Chemicals and a Corporate Merger for Wilderness

In another atypical transaction, WLT employed a complex corporate merger strategy to acquire Avawatz Salt and Gypsum Mine, once known as Death Valley Chemicals. The Kerckhoff family, one of the founders of Beverly Hills, had bought the 2,450-acre (992 ha) property in 1912 and planned to mine gypsum and transport it to the building boom taking place in Los Angeles. Herman Kerckhoff had sold stock in the family’s Avawatz Salt and Gypsum Company in which the mine was the chief asset. The proposed Amargosa Railway for delivery of gypsum to Los Angeles never materialized. Thus, no large-scale disturbance of the land ever took place.

WLT's success in adding more than 57 square miles to the NWPS in the past 20 years testifies to the viability of the organization and its mission.

Fast forward now to the 21st century when the Avawatz Mine property was surrounded by BLM lands that were in the Death Valley Wilderness Study Area and part of U.S. senator Diane Feinstein's (D-CA) proposed Desert Protection Act. When approached by the WLT, the Kerckhoff family was willing to sell the mine property, but only if it were sold together with the Avawatz Salt and Gypsum Company. Acquisition of the latter company by WLT then presented the thorny issue of deceased stockholders or those of unknown whereabouts who could not be contacted. The creative answer to this conundrum was for WLT to set up a separate entity, Avawatz Acquisition Corporation, wherein WLT was the majority shareholder. The purchase was completed with a grant from the Resources Legacy Foundation's Preserve Wild California Program. The former mine property was then donated to BLM for inclusion in the Death Valley Wilderness Study Area.

The happy result was win-win all around. The U.S. taxpayers got nearly 4 square miles of wildlands at no cost, the Kerckhoff family added to their historic legacy, and a valuable piece of wild California, containing verdant Sheep Creek Springs and its population of endemic toads and water source for bighorn sheep, was protected.

A Square Mile of California Wildlands Protected

A recent WLT acquisition illustrates benefits to species and ecosystems that would be adversely affected by existing and proposed development. Most of

the 181,000-acre (73,279 ha) Yolla Bolly Middle Eel Wilderness lies within the Mendocino National Forest, north of Sacramento, California, in the eastern California Coast Range. WLT has acquired there a 1-square-mile (640 acres/259 ha) tract that will be transferred to the U.S. Forest Service for inclusion in the NWPS. Situated on Leech Lake Mountain, headwaters of several streams feeding the designated Wild and Scenic Middle Fork of the Eel River provide critical habitat and summer cold waters for steelhead trout and chinook and coho salmon, the latter labeled as threatened under the Endangered Species Act.

WLT's purchase also protects regionally sensitive species including marten, fisher, goshawk, and spotted owl. Globally rare plant communities are supported by serpentine soils that host the unique foxtail pine and Pacific fuzzwort, and are good foraging grounds for bald eagles and deer.

The diverse habitats of carbon-sequestering mixed conifer and red fir forests, in addition to scrub white oak and riparian areas, will now be secured from the looming threat of logging and the incursion of off-road vehicles. This area served as species refugia during the climate changes of the last ice age, and so will remain as a buffer for species during the present anthropozoic-induced climate alterations. Added bonuses are enhanced protection of nearby paleontological resources and important deer summer range.

This private parcel, for sale as a hunting camp with a house and outbuildings, had been accessed by a 4-mile (6.4 km) road through the des-

ignated wilderness and also included an additional 11 miles (18 km) of internal roads. Artificial ponds and water distribution systems increased the remote parcel's attractiveness for illegal marijuana farming, which is responsible for increasing widespread degradation of our public lands. WLT is currently seeking funds for closure and restoration of these roads and structures so that these lands can be transferred to the federal government.

The Trail Ahead

WLT's mission remains daunting; nonetheless, its success in adding more than 57 square miles (148 sq. km) to the NWPS in the past 20 years testifies to the viability of the organization and its mission. The increasing pressures of forces such as population growth, development, and climate change demand that we insulate our remaining wildlands as well as possible and as quickly as we can. This effort will require an expanded cadre of committed individuals and organizations that understand Aldo Leopold's admonition (1925): "For unnumbered centuries of human history the wilderness has given way ... we must now challenge that dogma, or do without our wilderness."

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