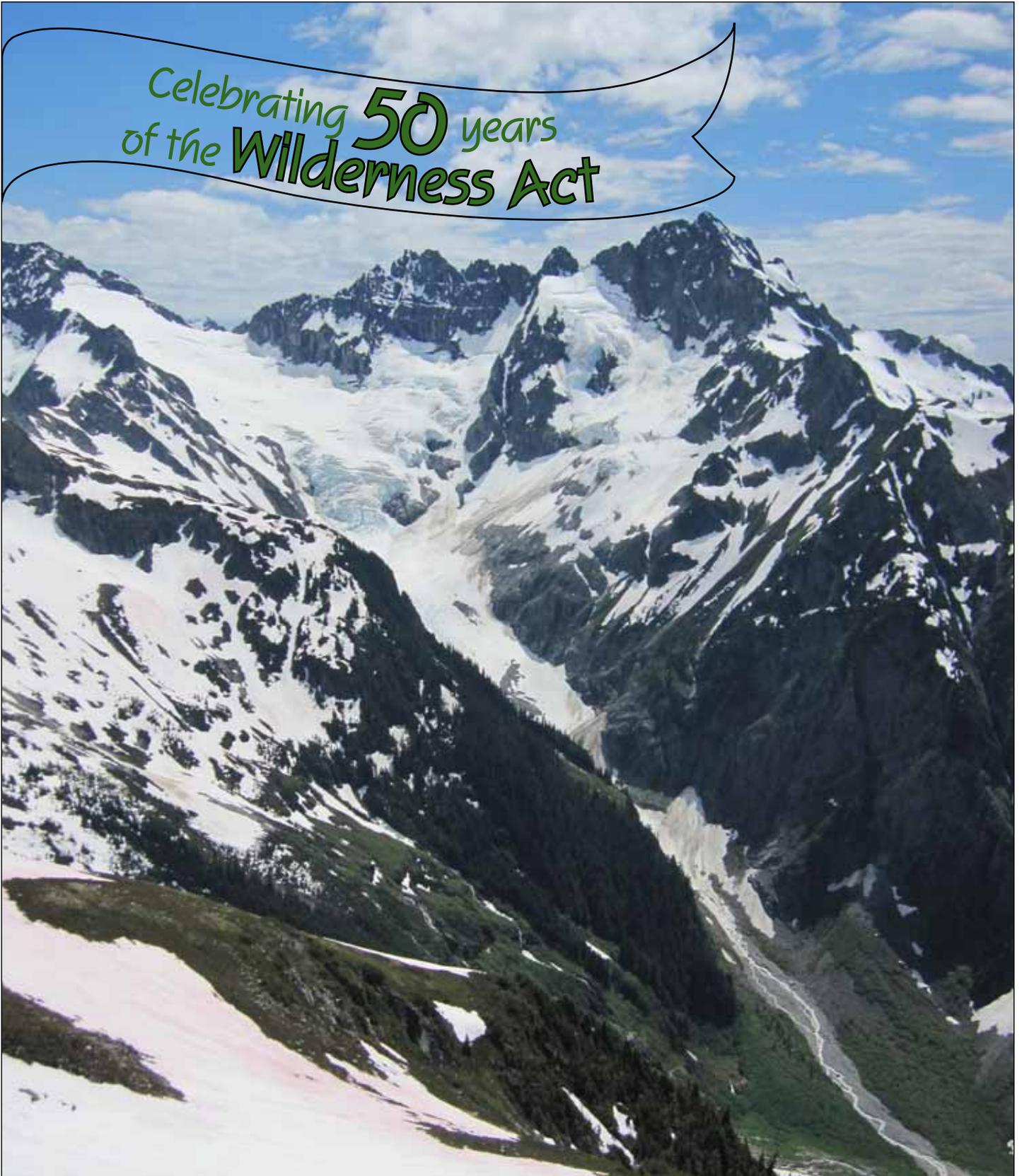


THE WILD CASCADES

THE JOURNAL OF THE NORTH CASCADES CONSERVATION COUNCIL SPRING-SUMMER 2014

Celebrating **50** years
of the **Wilderness Act**



THE WILD CASCADES ■ Spring-Summer 2014

- 3 **President's report** — Karl Forsgaard
- 4 **Granite MotoCross permit issued; appellants strongly object**
Snohomish County takes interest in Wallace Falls
- 5 **Mining proposed in the headwaters of the Methow River above Mazama**
Meet Doctor Polly
Green Mountain Lookout to remain
- 6 **NCCC Actions, October 2013 – June 2014**
- 8 **Protecting Wilderness: A personal meditation** — Ed Henderson
- 10 **Rowland Tabor: Geology and the Wilderness ethic in the North Cascades**
— Philip Fenner
Forty years of geology in the North Cascades and growth of the Wilderness ethic — R.W. Tabor, 1995
- 12 **The 1984 Washington Wilderness Act – 30 years on** — Rick McGuire
- 14 **Book Review: *The Wild Nearby*** — Ed Henderson
- 15 **Book Review: *The North Cascades Highway: A Roadside Guide to America's Alps*** — Philip Fenner
- 16 **NCCC joins FFCC to advocate for forest management to protect climate**
- 17 **How large should Glacier Peak Wilderness be?** — Patrick Goldsworthy
map
- 18 **Images of overuse**
- 19 **Fall events celebrating Wilderness**
- 20 **The Corvid's eye**
- 21 **Cascade rambles: Foothill fancy** — Rick McGuire
- 22 **Yet another dam threatens Similkameen River** — Rick McGuire
- 23 **Holly time bomb in NW forests** — Rick McGuire
- 24 **Cascades trip report: 10 years after: Revisiting S Mountain** — Tom
Hammond
- 26 **Water users propose Icicle Creek water project in Wilderness** — Gus
Bekker
- 27 **Membership application**

COVER: Honoring The Wilderness Act of 1964 and the Washington Wilderness Act of 1984: The Middle Cascade Glacier below Mount Formidable forms the headwaters of the Middle Fork Cascade River. The summit was protected 50 years ago, and the valley 30 years ago. —TOM HAMMOND PHOTO

The Wild Cascades

Journal of the North Cascades Conservation Council

EDITOR: Anne Basye

EDITOR EMERITUS: Betty Manning

EDITORIAL BOARD: Philip Fenner, Anders Forsgaard,
Tom Hammond, and Rick McGuire

Printing by Abracadabra Printing | Pat Hutson, Designer

The Wild Cascades is published three times a year (Winter, Spring, Summer/Fall).

Letters, comments, and articles are invited, subject to editorial review.

The Wild Cascades Editor

wildcascades@northcascades.org

North Cascades Conservation Council

PO Box 95980, University Station, Seattle, WA 98145-2980

THE NORTH CASCADES

CONSERVATION COUNCIL was formed in 1957 "To protect and preserve the North Cascades' scenic, scientific, recreational, educational, and wilderness values." Continuing this mission, NCCC keeps government officials, environmental organizations, and the general public informed about issues affecting the Greater North Cascades Ecosystem. Action is pursued through administrative, legal, and public participation channels to protect the lands, waters, plants and wildlife.

Over the past half century NCCC has led or participated in campaigns to create the North Cascades National Park Complex, Glacier Peak Wilderness, and other units of the National Wilderness System from the W.O. Douglas Wilderness north to the Alpine Lakes Wilderness, the Henry M. Jackson Wilderness, the Chelan-Sawtooth Wilderness, the Wild Sky Wilderness and others. Among its most dramatic victories has been working with British Columbia allies to block the raising of Ross Dam, which would have drowned Big Beaver Valley.

NCCC is supported by member dues and private donations. These contributions support the full range of the Council's activities, including publication of *The Wild Cascades*. As a 501(c)(3) organization, all contributions are fully tax deductible to the extent allowed by law. Membership dues for one year are: Living Lightly/Student \$10; Individual \$30; Family \$50; Sustaining \$100.

**North Cascades
Conservation Council
P.O. Box 95980
University Station
Seattle, WA 98145-2980**

**NCCC Website
www.northcascades.org**

The Wild Cascades is printed on recycled paper.

NCCC Board

Officers

PRESIDENT

Karl Forsgaard

VICE PRESIDENT

Tom Hammond

TREASURER

Tom Brucker

ASSISTANT TREASURER

Athena Pangan Hammond

SECRETARY

Marc Bardsley

Other Directors

Bruce Barnbaum

Polly Dyer

Philip Fenner

Dave Fluharty

Anders Forsgaard

Ed Henderson

Dave LeBlanc

Carolyn McConnell

Rick McGuire

Thom Peters

Thom Schroeder

Advisors

Charles Ehlert

Kevin Geraghty

Fayette Krause

Betty Manning

Laura Zalesky



Founded in 1957
SEATTLE, WASHINGTON

The President's Report

Spring-Summer 2014

When the Wilderness Act became law in 1964, I was a tree-hugging Beatlemania-cub scout, inspired by Norman Rockwell's image of Albany scouts backpacking into the Sangre de Cristo range. Those were *real* mountains, so I went west to explore parks and wilderness, eventually connecting with NCCC and its work. From Glacier Peak to Wild Sky, NCCC volunteers have played a huge role in protecting wilderness in the Cascades, and we're grateful for your commitment, engagement and support of NCCC.

As we celebrate the 50th anniversary of the Wilderness Act this year, I'm honored to be returning to New Mexico as a speaker at the National Wilderness Conference in October. It will be fun to reconnect with wilderness advocacy colleagues from all over. We had a big crew at the 1994 Northwest Wilderness Conference, where Ira Spring and I staffed the WTA table, only a few feet from Pat Goldsworthy's NCCC table, and a lot of other wilderness protectors with whom NCCC is still working.

In 1996 I was invited to statewide conservation conferences in Colorado and Washington to present our lawsuit victories regarding motorized recreation in National Forest wilderness candidate areas, specifically the North Fork Entiat and Dark Divide. The organizing committee of the 1998 National Wilderness Conference included mechanized recreation on the program, and we recruited panelists from the network that became the Natural Trails and Waters Coalition. The rec panel included NCCC board member Harvey Manning, and we also invited the International Mountain Bicycling Association but they declined due to four other events the same day.

For the Act's 40th anniversary in 2004, I spoke at both the National Wilderness Conference (in Lake George, N.Y.) and the Northwest Wilderness Conference in Seattle, with news of NCCC's success in the Goose-Maverick lawsuit and NOVA funding reform in the State Legislature. Other rec panelists covered swamp buggy damage to Big Cypress and snowmobile trespass into Wilderness. At the Western Wilderness Conference in 2010 in Berkeley, geologist Howard Wilshire covered off-road vehicle damage to desert ecosystems while I addressed forests, with news of NCCC's Mad River victory and vivid images of machine-caused damage at Reiter Forest here in the North Cascades.

If you can make it to the National Wilderness Conference this year, I look forward to seeing you there. Much closer to home, a 50th anniversary celebration is being planned for Saturday, October 11, at The Mountaineers headquarters in Seattle. There will probably be other local public celebrations too. And of course your best celebration may be a very personal one – visiting your favorite Wilderness areas! If your plans include Glacier Peak Wilderness, consider spending some time and money on the Mountain Loop Highway during your visit, and check the Destination Darrington website for things you can do there. We extend NCCC's condolences to the victims of the devastating Oso landslide, and we encourage everyone to assist the affected communities as they rebuild.

Karl F. Forsgaard
Karl F. Forsgaard

Granite MotoCross permit issued; appellants strongly object

On May 13, 2014, Hearing Examiner Phil Olbrechts issued his decision about the Granite Falls Motocross Park project on the Mountain Loop Highway east of Granite Falls, following six days of hearing, with subsequent briefs by the appellants (the Mountain Loop Conservancy, North Cascades Conservation Council and Pilchuck Audubon) the applicant and Snohomish County (in support of the project). A permit was granted for the project, together with several new, stiffer conditions that the developer must meet.

The appellants feel strongly that the decision was the wrong one, and on May 22 filed a motion for reconsideration with the hearing examiner. Multiple issues were raised in the reconsideration motion, noting that the examiner had largely applied

conditions that would be monitored by the Snohomish County Planning and Development Services Department (PDS), which so strongly argued in favor of the development.

Among the SEPA issues cited for reconsideration were the impacts on nearby residents and nesting marbled murrelets (a threatened species) from excessive and constant noise, and the potential for landslide down the steep slopes of nearby Canyon Creek (just 200 feet from the racing tracks) due to the inadequate drainage plans offered by the developer.

Olbrechts called for responses to the reconsideration motion by June 6, with replies to those comments by June 10. A revised decision was to be issued within 15 working days of those comments.

Following that, there could be an appeal directly to the County Council from either the developer or the appellants.

We feel that this project will have significant impacts on traditional recreational opportunities along the Mountain Loop, which is Snohomish County's premier outdoor recreational area, drawing up to 400,000 people per year. A set of six motocross racing and practice tracks is wholly incompatible with traditional recreation. Yet the recreational community—as well as nearby residents—knew nothing of the project until after the Snohomish County Council passed an ordinance making the project possible on the chosen site. However, some of the major hazards of the site that were brought out at the hearing were not known at the time.

Snohomish County takes interest in Wallace Falls

The Snohomish County government has taken an interest in the Reiter Forest and Wallace Falls area, and the Singletary timber sale in particular, by requesting the Department of Natural Resources to hold off action on the sale. *TWC* Winter 2014 covered the Wallace Falls threat at length. DNR has announced plans to log right next to Wallace Falls State Park, right on top of a new trail system currently being built to provide alternative access on Reiter Forest lands to Wallace Falls State Park, one of the most popular hiking destinations in the state.

NCCC has been involved in the management of Reiter Forest for many years. Prior to 2008, Reiter was overrun by ORVs

and suffering great damage as new routes were continually carved all across the forest by machines that were going almost everywhere. DNR has subsequently gotten a handle on its management and ORVs have been confined to certain routes in certain areas and the level of erosion and destruction greatly reduced. Hiking, horse and mountain bike routes are planned for other areas of the 10,000 acre forest.

A letter from Snohomish County requests DNR to delay action on the Singletary sale, so as to allow time to look for some way to avoid logging what is expected to be a very heavily used non-motorized trail system. DNR's decision to place the Singletary sale in the very worst possible location, directly bordering the state park for over a mile and right along much of the new trail network, has drawn wide criticism. It is in some ways reminiscent of the days when the Forest Service would carry out "wilderness preventative logging," by placing timber sales far inside wild areas, the intent being to preclude any chances of protecting the area.

The Snohomish County letter was signed by all five County Council members as well as the county executive, John Lovick. The DNR subsequently decided to postpone until autumn 2014 placing the Singletary sale before the Board of

Natural Resources for approval. This has accomplished the county's interim goal of buying time in which to look for a way to avert the planned logging. Snohomish County Councilman Dave Somers, in whose council district Wallace Falls is located, deserves credit for taking interest in the Wallace/Reiter area and making the letter happen.

The land in question is owned by Snohomish County, but managed by DNR. It is possible for counties to take lands like these out of DNR management and back under direct county control, through "re-conveyance." It is not a simple or easy process, but it can be done. The most notable recent example is at Lake Whatcom where Whatcom County has taken over management of several thousand acres from DNR, the intent being to create a county park.

The delay of the Singletary sale is encouraging, but it is just a first and temporary step. If Snohomish County is to take back management in full, means will need to be found of replacing the expected revenues from the Singletary sale to all affected taxing districts, as well as other costs. But Wallace Falls, a very heavily used four-season hiking destination, one of very few in the county, is worth it. The Snohomish county government seems to agree. NCCC plans to stay closely involved.

Member profiles needed

We'd like to feature YOU on our new website! Send us a short profile of yourself and tell us why you're a member. Email philf@northcascades.org and include a photo if you'd like.
Thanks!

Mining proposed in the headwaters of the Methow River above Mazama

A very disturbing letter from the Methow Valley Ranger District of the Okanogan-Wenatchee National Forest arrived in the NCCC mailbox in early May. The letter, from Methow District Ranger Michael Liu dated April 18, notified us of a mining operation around Flagg Mountain, which sits directly above the town of Mazama.

Discovery Consultants will be establishing at least 15 drill sites to determine extent of mineral resources. While all sites will use existing roads, many of the roads are now closed, overgrown and will need to be re-opened/made passable. The project is located within Management Area

25 (MA 25)—an area of Late Successional Reserve (meaning big, old trees).

Drilling would start in August of this year

The United States Forest Service (USFS) is doing this under a categorical exclusion (CE), but we are trying to convince them to do a full Environmental Assessment (EA), and to “just say no” to the whole thing. The Methow Valley, like all drainages of the North Cascades, is unsuitable for mining activity. One need look no further than the Azurite Mine remediation or the Holden Mine remediation to see the

devastating ecological impacts of mining done under the outdated General Mining Law of 1872. This law gives away public land and treasure for \$5 per acre (yes, five dollars per acre), and taxpayers get NO royalties from the extracted minerals, but are left with all of the risk and liability associated with mining. Invariably taxpayers are left to pay the majority of cleanup costs, and when/if mining companies do pay, they are notorious for underfunding such efforts, leaving a toxic legacy for generations to come. Remediation doesn't mean “clean-up!” The only way to prevent the damage these mines do is to prevent the mines!



Doctor Polly with Donna Osseward, President of Olympic Park Associates; Sally Soest, Olympic Park Associates; Lisa Flubarty, David Flubarty and Marc Bardsley, past presidents of NCCC, Lynn Bardsley and Ed Henderson, past president of the Mountaineers.

Meet Doctor Polly

During the March 22 winter commencement ceremony, Western Washington University awarded Pauline “Polly” Dyer an Honorary Doctorate of Humane Letters. This award recognized Polly's more than six decades of dedicated work on conservation and environmental activism. The citation enumerates many of the organizations and campaigns Polly has been involved with and where she served as a tower of strength and provided clear guidance—noting, among many other significant contributions, co-founding the North Cascades Conservation Council in 1957.

Doctor Polly was joined at the celebration by a few of her many friends and admirers from organizations to which she has contributed so much.

Green Mountain Lookout to remain

A recent federal statute allows the new, reconstructed Green Mountain Lookout to remain in the Glacier Peak Wilderness. In March 2012, the US District Court ruled that the Forest Service had substantially violated the Wilderness Act with over sixty helicopter flights, the extensive use of power tools, including jackhammers, placement of concrete footings and con-

struction of the new lookout consisting of almost all new material (See Thom Peters' report in the Summer/Fall 2012 issue of *The Wild Cascades*.)

NCCC regrets the outcome of this controversy. The approval of a violation of basic tenets of the Wilderness Act sets a terrible precedent and raises the specter of similar bills that undermine the integrity

of Wilderness. NCCC shares the concerns of former Secretary of the Interior Stewart Udall:

“There is a real danger that hundreds of small decisions will produce a cumulative effect that effectively diminishes the wilderness resources the Act was written to protect for future generations.”



NCCC Actions

OCTOBER 2013
– JUNE 2014

Advocacy carried out by dedicated NCCC volunteers in the last nine months to protect and preserve the North Cascades' lands, waters, plants, and wildlife.



EXPANDING, ESTABLISHING, AND PROTECTING WILDERNESS AREAS

Why it matters: federal land designation as Wilderness and Park is the gold standard of ecosystem protection, precluding most damaging industrial and commercial exploitation.

- Along with other conservation organizations, met with the new Forest Supervisor for the Okanogan-Wenatchee National Forest.
- Continued participation with the American Alps Legacy Project to expand the North Cascades National Park Complex and the Cascades Wild campaign for new wilderness.
- Continued advocacy to protect Alpine Lakes Wilderness in the Icicle Workgroup process regarding water storage in wilderness lakes.
- Provided continuing input to Mountaineers Books' forthcoming book and advocacy tool, *The North Cascades, Finding Beauty and Renewal in the Wild Nearby*.
- Participated in planning for national and local celebrations of the Wilderness Act's 50th Anniversary.
- Memorialized wilderness champions Patrick Goldsworthy and Philip Zalesky.



PROMOTING ENVIRONMENTALLY SOUND RECREATION IN WILD AREAS

Why it matters: balancing access with economics and Wilderness preservation, we evaluate motorized use and places where it needs to be limited to reduce land impacts and recurring road repair costs.

- Testified as a co-appellant before a Snohomish County Hearing Examiner to require a full Environmental Impact Statement (EIS) for the proposed motocross racetrack complex on the Mountain Loop Highway.
- Provided testimony and led opposition to HB 2151 (the Washington Trails Act) promoting off-road vehicle use on state lands. As a result of our advocacy, the worst parts of the bill were deleted. Participated in the State Department of Natural Resource's stakeholder process to develop a policy for trails on DNR-managed lands as required by the new Trails Act. Also helped defeat HB 2675, which would have opened all trails to All-Terrain Vehicles.
- Along with other conservation and climbing groups, met with and wrote a letter to North Cascades National Park staff on the use of drilled-in expansion bolt "fixed anchors" in Wilderness.
- Participated in a joint work party for the new non-motorized trail system at the Reiter State Forest.

CONTINUED



PROTECTING ANCIENT FORESTS AND PROMOTING RESPONSIBLE FOREST MANAGEMENT

Why it matters: like real estate, they're just not making ancient forest anymore. We seek to restore watersheds and fisheries damaged from decades of heavy logging and road building and protect significant forests from degradation.

- ✓ Continued advocacy against the proposed Bumping Lake dam that would flood Critical Habitat for the northern spotted owl, including facilitation of an op-ed in the *Seattle Times*, and a joint letter to Governor Inslee and Senators Murray and Cantwell.
- ✓ Signed joint letters to the Secretary of Interior, the Council on Environmental Quality and the Office of Management and Budget opposing funding for water storage elements of the Yakima Basin Integrated Plan.
- ✓ Participated in scoping meetings and joint scoping letter for environmental review of the proposed I-90 components (Keechelus-to-Kachess conveyance, Kachess inactive storage and Cle Elum pool raise) of the Yakima Basin Integrated Plan.
- ✓ Co-authored a joint letter to State DNR requesting delay and reconsideration of the Singletary timber sale in the Reiter State Forest adjacent to Wallace Falls State Park. As a result of our advocacy, the timber sale was postponed to autumn.
- ✓ Continued participation in the Sustainable Roads Project of Mt. Baker-Snoqualmie National Forest and the Travel Management process of Okanogan-Wenatchee National Forest.
- ✓ Joined the Federal Forest Carbon Coalition (FFCC) whose mission is focusing federal forest management on protecting the earth's climate.

RECREATION IN WILD AREAS, CONTINUED

- ✓ Provided input to conservation groups on the history of snowmobile use and abuse in and near the new Teanaway Community Forest.
- ✓ Signed a letter to the State Recreation & Conservation Office supporting funding for DNR-managed recreation infrastructure in the Middle Fork Snoqualmie River Valley.
- ✓ Signed a joint letter opposing HR 4272, which would undermine the National Forest Travel Management process.



PROTECTING WILDLIFE AND HABITAT

Why it matters: from microscopic fungi to top predators, the wilderness ecosystem's living members are interdependent, so keeping viable populations of each species is essential to preserve the ecosystem for future generations.

- ✓ Signed a letter to the State Department of Fish and Wildlife supporting an EIS for grizzly bear recovery.
- ✓ Provided testimony in proceedings regarding the Enloe Dam/Similkameen Falls project in Okanogan County.
- ✓ Signed a joint letter to Mt. Baker-Snoqualmie National Forest on scoping comments on the Excelsior Mine Environmental Assessment (EA).
- ✓ Wrote a letter to the Methow Valley District Ranger requesting an EA before permitting mining activity around Flagg Mountain above the town of Mazama.
- ✓ Signed a joint letter to the Washington Congressional delegation supporting continued funding for the Legacy Roads and Trails program in the federal budget.
- ✓ Signed a letter to DNR supporting the Mount Si Natural Resources Conservation Area boundary expansion.

Protecting Wilderness: A personal meditation

by Ed Henderson

What is Wilderness? A pristine land “where the hand of man has never set foot!”? Well there isn’t any of that left on our shrinking and crowded planet. I’m not sure there has been any since the first native peoples migrated across the Bering land bridge from Siberia during the last ice age, 12,000 to 15,000 years ago. Contrary to our European forefathers’ impression of the New World as a howling wilderness, America was a land already modified by human activity. Wilderness is, as the root word implies, wild. I believe the Wilderness Act (1964) contains the best definition of the term, both philosophically and legally:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain, ... and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable;

There isn’t much land left that meets that definition and we need to protect and cherish it.

What is the value of wilderness? Land has always been seen, in our Euro-centric view, in terms of the economic value that can be extracted. The last vestiges of untrammelled land remain here only because the exploitation of the resources was not as economically advantageous as in other areas. We started saving areas of unique and spectacular beauty for the benefit of mankind both as a pleasuring ground, as a respite from the crush of civilization and a refuge for spiritual renewal. Both the National Park’s Organic Act of 1916, and the Wilderness Act, 1964, explicitly states this. Both laws clearly affirm that national parks and Wilderness Areas are to be maintained unimpaired for the benefit

of future generations. Included in such protection is the community of life that is the essence of wild in the wilderness.

The laws establishing both the parks and Wilderness are anthropomorphic. The 1916 Organic Act (establishing the National Park Service) states:

Which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide

for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. (U.S.C., title 16, sec. 1.)

And the 1964 Wilderness Act:

It is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as “wilderness areas”, and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character.

And:

Wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

Two definitions may be helpful:

- Wilderness with a capital “W” is congressionally designated wilderness with legal protection.
- wilderness with a lower case “w” is defacto wilderness, ecosystems without legal protection.

In order to protect Wilderness and its community of life unimpaired for future generations, the boundaries of Wildernesses must be expanded. We have thrown a protective shield over spectacular and unique beauty, the bare rocks and ice that were perceived to have little commercial value. In order to pass on true wilderness, as the laws requires, we must expand Wildernesses to encompass complete ecosystems. We must include the lowlands between the high rocky ridges, the valleys where the forest remains, where free streams flow and the wild animals seek shelter from the winter snows.



Erythronium grandiflorum or glacier lily, as seen in the meadows around White Pass, Glacier Peak Wilderness. The lily’s bulbs are an important and preferred food of the rare North Cascades grizzly bear. —PHIL FENNER PHOTO



Noisy-Diobsud was added to the National Wilderness Preservation System with the passage of the Washington Wilderness Act of 1984. This little Wilderness Area adjacent to NCNP is woefully incomplete, with many square miles of intact ancient forests stretching beyond its borders down to Baker Lake on its west side that deserve the same protection as the higher-elevation lands now in the Wilderness.

—PHIL FENNER PHOTO

This will embrace the community of life that is the wild in wilderness.

In spite of Justice William O. Douglas' eloquent dissent in the Mineral King decision (*Sierra Club v. Morton*, 405 U.S. 727(1972)), trees, and other non-human species, do not have standing in court or in the eyes of the law to defend themselves. People, who do have standing, must advocate on their behalf, based upon the concept of protecting and passing on the Wilderness *unimpaired* to future generations of mankind.

Access versus restriction: a quandary

The Wilderness Act gives legal protection to Wilderness, including defense against resource extraction, mining, logging, hydropower dams and recreational resorts catering to the wealthy and physically lazy. But there are always those who seek short-term profit at the expense of the commons. New threats constantly arise; terrorism leads some in Congress to support Homeland Security's efforts to build roads, fences and surveillance towers in Wilderness within 100 miles of the national border. Other schemes are frequently floated with the flawed logic that since Wilderness is for mankind, this or that project meets the intent of the Act because it has some benefit to mankind, or at least some members.

We have made great progress in preserving and protecting wilderness from those who see undeveloped public lands as a storehouse to be exploited for private

profit, from those whose only vision for wildlands is resource extraction, from the timber beast, the gypo loggers, and mining prospectors seeking the mother lode. We know these opponents and we know how to defend the wilderness against their rapacious designs. But what about our friends? Those who have joined us in adding lands to the national parks and Wilderness areas, who now want to enjoy those lands? How do we respond to their appeals to allow apparently insignificant and minor infractions of the law for the ease and convenience or simple desires of Wilderness users?

The debate rages between those who would allow unrestricted access to the multitudes and those who would strictly limit entry to preserve an opportunity for solitude for a lucky few and, incidentally, protect the Wilderness unimpaired. How does this debate impact public support of wilderness? How important is it for people to be able to access and enjoy wilderness in order for them to provide public, political support to the protection and expansion of Wilderness?

The parks and Wildernesses are for the benefit of man. The law is clear, these lands are set aside for the enjoyment of the American people. Any benefit or protection of other species is incidental. These lands are not to be locked-up, placed off-limits or maintained in pristine condition to protect other species. On the other hand, the law mandates their protection and preservation, leaving them

unimpaired for the future use and enjoyment as wilderness.

Parks and Wilderness are neither to be developed as playgrounds nor to be protected in isolation from the citizens for whose benefit they were created. Clearly the law intends a balance between access, use and enjoyment and preservation with the necessary protection to keep these lands and the community of life within them unimpaired for future generations.

In the legal defense of Wilderness, the fundamental criteria must be "unimpaired." Limits should only be placed upon access and use to protect the wilderness resource from physical damage and degradation. The opportunity for solitude may not always be available everywhere, but can be found further down the trail or on another day. Minor infractions of the clear intent of the law should not be overlooked with a wink and a nod, but stopped and corrected. We should consistently act to carry out not only the letter but also the spirit of the law maintaining wilderness untrammelled by the works of man and unimpaired for the future.

The first line of protection of Wilderness is dependent upon the law, but the law is dependent upon the will of the people as expressed through the legislatures and congress. We should encourage the proper use and enjoyment of Wilderness to build an appreciation of wilderness. That is how to promote public support for wilderness that becomes political power to expand Wilderness and keep the laws strong that protect Wilderness.

Rowland Tabor: Geology and the Wilderness ethic in the North Cascades

by Philip Fenner

NCCC member Rowland Tabor's career is one that most of us only dream of. Job description: As USGS staff, hike for weeks at a time in the North Cascades and Olympics, and document the routes and rocks. He has published many scholarly professional papers and geologic maps, but his popular descriptions of the origin and processes involved in the formation of the Cascades are non-technical and reader-friendly, and continue to delight hikers with an interest in the story behind the peaks, glaciers and tarns. The maps he made to accompany his publications are important references for those who seek "high routes" today.

Twenty years ago in *The Wild Cascades*, he looked back at his (then) 40-year career of geologic exploration and mapping in

the North Cascades. We're reprinting it below with an update he offered us.

One can imagine how torn he must have felt at times, hoping not to find what he had been sent to find. He was sent to locate mineral deposits but was hoping he didn't find them so that there wouldn't be more mining messes made in the North Cascades, which were riddled with mining claims, many left over from the gold rush era.

Part of the Wilderness Act that allowed mineral development was sunsetted at 20 years, so in 1984 you could no longer develop mines even if your claim was patented. The 20-year window was left open as a concession to the mining industry, but the side effect was to trigger a push to develop or your claim would be lost,

which came to a head with the Kennecott claim near Image Lake. In some ways, the minerals problem was made worse by the enactment of the Wilderness Bill, until those 20 years were finally over.

Even his guidebooks had some unintended consequences, as they brought more people and more trammeling into the areas he described. His original masterpiece *Routes and Rocks*, coauthored with the late Dwight Crowder, was never updated and went out of print in part because it seemed to have prompted increased visitation into pristine backcountry. His more recent geologic guide *Mountain Mosaic*, coauthored with Ralph Haugerud, is somewhat more general, not showing campsites or high routes on its maps.

Rowland's career began about the time NCCC was founded, when he saw his mission as discovering new mineral deposits and the then-unprotected Cascade Range was viewed by society mostly as a resource for a growing economy. Gradually the land ethic of Leopold began to take hold on him and on the nation, as he relates in his essay. We may still have some way to go, but when you hear Rowland talk about what he saw and what sorts of things happened 60 years ago, you'll appreciate how far we've come.

Forty years of geology in the North Cascades and growth of the Wilderness ethic

by Rowland W. Tabor, 1995

“Gawd, what an awful thought” exclaimed a young geologist of our party. We were mapping in the North Cascades, and I had just suggested that it would be great if we discovered another copper deposit like Holden. I was a newly hired, naive, and idealistic geologic field assistant for the U.S. Geological Survey, mainly hired to be a cook. I felt that studying rocks and making geologic maps were part of an endeavor to find new mineral resources. The young geologist, now Professor Emeritus, University of California at Santa Barbara, was truly shocked at the thought of another large mine in the wilderness of the North Cascades. His interest was

geologic process and history. Never mind that the Government hoped to find more copper. The year was 1953. During this discussion, we were probably traversing a mountainside above Phelps Creek in terrain that would eventually be part of the Glacier Peak Wilderness. There was lots of mineralization, and I thought it was exciting. The tensions between geologic studies and the wilderness ethic have diminished over the years. The growth of the wilderness ethic has affected not only how we do geology in the North Cascades, but what kind of geologizing we do.

My attitude has changed from those early days, but I would still be excited (and probably dismayed as well) if I found

a really big ore deposit. Then, our way of camping was very different from what it is now. We lived in heavy canvas tents supported by freshly cut small fir logs. On camp moves, I, as assistant, was sent ahead of the pack string with an ax to cut the trees needed to set up the tents. I also carried a shovel to dig a deep pit in which to bury garbage and other camp refuse, mostly tin cans. We always had campfires, even in the alpine areas. In later years, our much lighter tents had their own poles and all inorganic garbage was carried out. Like other responsible alpinists, we seldom have fires in the high country.

When we began using helicopters for camp move support, starting in 1960,

we ceased contributing horse damage to trail and meadow, but we violated more pristine meadows which hitherto had not been reached by hiker or horse. We were more careful in our camping habits, but I won't tell you where we once buried large amounts of old camping gear that we felt was not worth an extra helicopter trip, even at only \$250 per hour. We buried it deep, but with dread and shame, I anticipate the day when erosion somehow uncovers it.

Daily we ate our lunch of sardines or kipper snacks and tossed the tins over a precipice, knowing that no one would ever visit that remote spot again. How naive and boorish. I have since found old rusted cans, probably left by previous geologists; I know because I have read their descriptions of where they went and what rocks they saw, and because no one else *would* go to those places.

The evolution of a wilderness ethic had even more profound effects on North Cascades geologists. With the passage of the Wilderness Act in 1964, Congress told the Geological Survey to evaluate the areas for economic mineral potential before they became wilderness and gave the Forest Service the money to pay the Survey to do the job. Some of us were compelled to become prospectors in the mountains that we loved. To evaluate mineral potential we had to sample stream sediments, which were then analyzed for their contained metal. We would much rather have been communing with rocks on the high ridges than crashing down through the brush of North Cascade streams. But on the positive side, we had a helicopter at our beck and call; we were able to savor more rocks in more places than ever before (or since). We were very noisy in the wilderness, but we did little damage by heavy camping, and our knowledge of the mountain geology increased by a quantum leap.

Even the politics of making wilderness reached down into the Geological Survey. Our report (Staatz and others, 1971) on the mineral potential of what is now the Pasayten Wilderness may have helped Congress decide that no huge mineral resources were being 'locked up', but our completed report (Staatz and others, 1972) on the area now included in much of the North Cascades National Park was not made public until after the Park bill had passed. What was supposed to be a report used to make land-use decisions became an after-the-fact report on the just-established National Park. I would like to think that Park boundaries might have been based on Congressional knowledge of our



study, but the southern part of the Park extends into areas never ever evaluated for mineral potential by the USGS. Many years later several more Wilderness areas were designated in Washington without mineral evaluation. Does this mean that society could have established all the Wildernesses across the United States without the aid of geologists? Probably.

In an ideal world, society would establish wilderness areas on their scenic and unspoiled merits alone. Continued geologic study would proceed as usual. A sane society would want to know what its resources were even if unexploitable under present laws. And a sane society would resist exploiting those resources unless people were dying in the streets for lack of copper kettles. Well, it is not that way.

The Wilderness Act stipulated that the Wilderness areas would be open to entry for mining claims for 20 years following enactment. During this period, the Survey evaluated many areas that became designated Wilderness - more opportunities to learn about the geology of the North Cascades with abundant helicopter support. But when the 20 years were up, the Forest Service, made nervous by the constant badgering of conservationists, decided that helicopter use for further geologic surveys was no longer allowed in the established Wilderness Areas. Unfortunately we North Cascade geologists were just beginning to understand the complex geology of the mountains and still had

Cabin from the "Glacier Peak Mines" operation of Kennecott Copper, remaining from prospects of a 372-acre open pit mine on Miners Ridge, dating back to the 50s.

—PHIL FENNER PHOTO

many serious questions to ask the rocks in the Wilderness Areas. (Well, I know that in 30 years or so we should have understood, but geologic knowledge advances in geologic time units.) The helicopter has always been cheaper than long backpacks on foot by even poorly paid geologists, but to the Forest Service managers, saving money was not an excuse for us to fly in the Wilderness. I never tried to argue that I might be dead before we finished if we had to do it all on foot, but I should have. One sympathetic Ranger told us that as long as we did not land we could fly as close to the ground as we wanted. We learned quite a bit this way, or at least we think that we did.

Modern U.S. Geological Survey work in the North Cascades began in 1952. Our present project in the North Cascades began in 1975. Imagine a government program that lasted 20 years; it almost qualifies for the geologic time scale. We have mapped 7 plus 1:100,000 scale quadrangles covering most of the North Cascades, and then some. Our goal of 8 quadrangles

Continued on page 16

The 1984 Washington Wilderness Act – 30 years on

by Rick McGuire

Ever since the 1949 publication of George Orwell's vision of a totalitarian future, the number 1984 has had a bad reputation for many. But in the conservation history of Washington state, it is a number full of good memories.

The milestones of land conservation in Washington state are numerous. Although the definition of "protected area" has been somewhat diluted in recent years, no one can dispute that Washington is among the top five states in terms of percentage of area protected. This places Washington at the top of the league not just in the U.S. but in the entire world.

Conservation victories in Washington are too many to list in full but some of the most notable include:

1938: Nearly a million acres, much of it prime old growth forest, in Olympic National Park, then and now in a class of its own.

1964: Passage of the Wilderness Act, protecting several hundred thousand acres in Washington state, including the Glacier Peak Wilderness.

1968: North Cascades National Park and Pasayten Wilderness established, totaling over a million acres.

1976: Alpine Lakes Wilderness designated east of Seattle, nearly 400,000 acres.

This string of victories culminated in 1984, when after a long multi-year campaign the Washington Wilderness Act protected over a million acres all across the state. Never before, or since, has there been anything quite so far reaching, encompassing areas stretching from the Colonel Bob Wilderness on the west side of the Olympics to the Salmo Priest in the far northeast of the state, and the Juniper Forest area of south central Washington. The Act spanned the Cascades from the Mt. Baker Wilderness in the far north all the way down to the Trapper Creek Wilderness in the far southern Gifford Pinchot National Forest.

It was a great victory but it did not come easily. It took years of painstaking work and support building. The forces arrayed

against conservation were numerous and powerful. In the lead was the timber industry, a giant, well-financed opponent. The motorized recreation lobby was also strongly opposed.

Timber was, and still is, a big part of the Washington economy. It dominated the state in its early days, but its share of the pie has steadily diminished. The industry tried, but failed, to get big chunks removed from Olympic National Park during the 1950s. It did succeed, though, in getting most of the good trees off all the National Forests of the state, at cheap, taxpayer-subsidized prices. But it never managed to reach its goal of taking absolutely everything. For decades, up until almost 1990, it held out the threat of "timber primacy" legislation, to enshrine logging as the dominant use on National Forests. The conservation movement was threatened with near-total destruction.

That never happened. The 1984 bill became a reality because the citizens of Washington state wanted it. It was a rebuke to the timber industry's take-it-all mentality, and to the idea that wild areas should be playgrounds for noisy, smelly and destructive off road vehicles. It was proof that the people of Washington wanted their wild areas left alone, the way Nature made them.

The 1984 bill also became a reality because of the decline of the "timber Democrats." For decades, powerful Democratic politicians brought home the bacon in terms of high road-building budgets for the Forest Service, often running into the hundreds of millions of dollars per year, serious money in those days. Senators Henry Jackson and Warren Magnuson may have been progressives on some issues but generally viewed the National Forests as little more than a giant timber jobs

program. They were aided by a number of different House members, as well as powerful Oregon politicians such as Senator Mark Hatfield.

Deaths, elections and retirements made 1984's Washington Congressional delegation quite different from what it had been a decade earlier. Although it was the era of Ronald Reagan and James Watt, the broader Republican party had yet to be fully taken over by hard-right, anti-conservation

zealots. Strange though it may seem today, Republicans like Dan Evans in the Senate and Joel Pritchard in the House were among the strongest conservationists of the day.

NCCC's involvement in the 1984 bill was greatest in the north and central Cascades. In the far north, efforts began to save what was called "Tomyhoi - Silesia," two valleys whose upper reaches had been spared since they both flow north into B.C. Both valleys, along with neighboring Damfino Creek, now anchor the northern end of the Mt. Baker

Wilderness. Adjoining the North Cascades National Park to its west, the Noisy Diob-sud Wilderness protected its two namesake valleys, somewhat ameliorating the problems of the strange Park boundaries, which in the words of Harvey Manning, "looked like they were drawn by a lunatic."

The 1984 bill made very significant additions to the Glacier Peak Wilderness on both its east and west sides. Another very big gain was the 150,000 acre Lake Chelan Sawtooth Wilderness to the east of Lake Chelan, including miles of high ridges and intervening valleys, a place that would otherwise have been overrun by motorcycles. This was made possible by the cooperation of Republican House member Sid Morrison in whose district it was located.

On the far western edge of the Mt. Baker

Despite its shortcomings, the 1984 Washington Wilderness Act remains one of the greatest landmarks of Washington conservation history.

Snoqualmie National Forest, the dark, mysterious ancient forests of the Boulder River valley form the core of the Boulder River Wilderness. These are true rainforests, located in the very wettest part of the Cascades, fireproof, and nearly impenetrable. Second District Representative Al Swift, though largely a timber Democrat, took an early interest in the area soon after his election to Congress in 1978. He introduced legislation to protect the area and made sure it was part of the 1984 bill.

The bill fell short in the Skykomish area northeast of Seattle. The Henry M. Jackson Wilderness took in only the very headwaters of the valleys there, with the sole exception of the Rapid River in the Beckler watershed. Otherwise, the Wilderness boundaries there were an odd series of zigs and zags, drawn to take in high country but leave out trees.

Just north of Mt. Rainier the small but heavily forested upper Clearwater River valley was protected in the Wilderness of the same name. East of Mt. Rainier, what was then called the "Cougar Lakes" area became the William O. Douglas and Norse Peak Wilderness areas. It protected over 230,000 acres, including forests of the upper Greenwater valley on the west side. They also take in many high meadowlands, alpine lakes, and dry valleys on their eastern sides.

Cougar Lakes was a flagship of the Wilderness campaign. A stand-alone bill to protect it was introduced by Seattle area First District Republican Joel Pritchard and

Seventh District Democrat Mike Lowry. This met some criticism since the area was located well outside both their districts, and their bill went against the sometime custom of the local Congressman deciding what should or should not become Wilderness within their district.

Lowry and Pritchard took the view that the lands in question were public lands, owned by all Americans, and that their constituents were frequent visitors to Cougar Lakes. If local Representatives always had the final say, there would have been far fewer conservation victories in American political history. Fortunately, Fourth District Republican Sid Morrison, an orchardist from Zillah in the Yakima valley whose large district included Cougar Lakes and much else, saw the value in protecting watersheds and the wild country where they are found. His support made the expansive William O. Douglas and Norse Peak Wilderness areas possible.

A number of other areas were also protected in the '84 act, and some existing Wilderness areas, like Goat Rocks, were expanded. The 1984 bill received some justified criticism for including too much high country and too little forest. It reflected the politics of its day, and what was then possible. Perhaps the greatest disappointment was the failure to designate any part of the Kettle Range in north central Washington, despite spirited local support, due to the obstinacy of timber Democrat Tom Foley, in whose Congressional district it was located.

Despite its shortcomings, the 1984 Washington Wilderness Act remains one of the greatest landmarks of Washington conservation history. The battle to save forests only accelerated in its aftermath. Growing awareness of the values of ancient forests led to the 1994 Northwest Forest Plan, which drastically curtailed cut levels on most northwest National Forests, making up for much of what was missing from the '84 act.

Much of the National Park acreage in Washington was given a Wilderness overlay in 1988, but after that there were no more Wilderness bills in Washington until Wild Sky in 2008. The Skykomish area was one of the places where the '84 bill did the least, with the strange-looking boundaries of its Henry M. Jackson Wilderness drawn specifically to exclude forests. Wild Sky addressed this and went on to break the mold in a very big way by protecting large extents of low-elevation forest, salmon streams, and even 6000 acres of second-growth forests, a first for any Washington Wilderness area.

NCCC has not finished working for new Wilderness in the North Cascades. Foundations are being laid for the eventual next round of protection, which will hopefully fill in many missing low-elevation pieces. The 1984 Washington Wilderness Act will always be remembered for its great accomplishments, but it was just one of many steps toward protecting the wonderful wildlands of the North Cascades, and coloring the maps a darker shade of green.



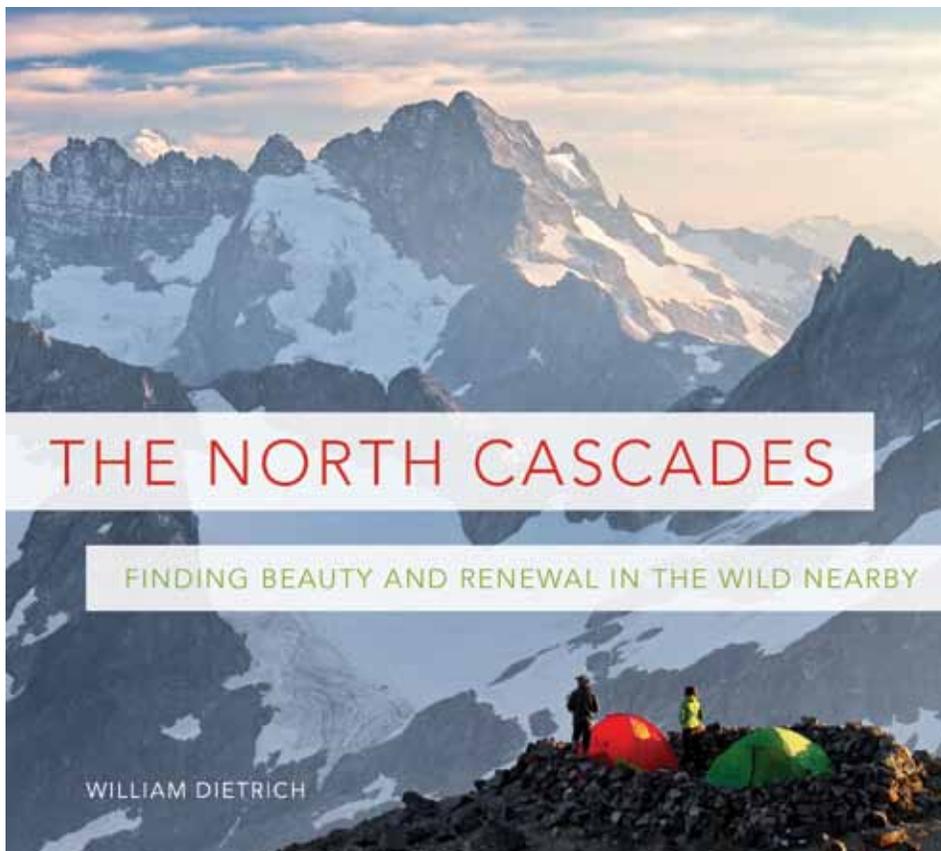
Karl Forsgaard on summit of Mount Formidable, with view across the Middle Cascade valley toward Cache Col, where our cover shot was taken. Everything this side of Cache Col was protected in 1984 by addition to Glacier Peak Wilderness in the 1984 Act, and everything on the other side of Cache Col (including Sabale, Buckner, Logan and Goode) was fully protected as Wilderness within Park in 1988.

—THOM PETERS PHOTO

Celebrating 50 years of the Wilderness Act

The Wild Nearby

Book Review by Ed Henderson



It has been fifty years since The Mountaineers published Tom Miller's stunning photographs in *The North Cascades*, with text by Harvey Manning. The Sierra Club quickly followed with *The Wild Cascades*, *Forgotten Parkland* by Harvey Manning. Both books were critical in educating the public and building support for the North Cascades National Park, founded in 1968. A decade later Brock Evans' *The Alpine Lakes* was instrumental in obtaining President Ford's signature on the bill to create the Alpine Lakes Wilderness. And in 1984, Harvey Manning's *Washington Wilderness*, *The Unfinished Work* was part of the successful campaign to add and expand wilderness areas around the state.

While much of the North Cascades are now either national park or wilderness ar-

reas, many parts remain unprotected. Now make space in your library for *The North Cascades: Finding Beauty and Renewal in the Wild Nearby*. To mark the 50th anniversary of the landmark Wilderness Act, Braided River, the conservation program within Mountaineers Books, will publish this large-format photography book that is not only a celebration of the North Cascades' beauty but an advocacy tool to aid in the completion of the vision of protecting that wild nearby. It answers the plea of former governor Dan Evans, who is actively working on the American Alps Legacy Project: "I wish there was a book on the North Cascades that I could pass around. It worked like a charm last time."

The first thing one notices is the beautiful photographs. One by NCCC's own Thom Schroeder graces the front cover.

Talented photographers share their vision from the cathedral groves of old growth in the deep valleys on the western slopes up to the icy peaks deep in the wilderness down to the lakes and sagebrush foothills to the east. It is a real treat to look at these pictures and fondly remember trips or plan new trips to visit these wonderful places. To fire your imagination, guidebook author Craig Romano provides ideas from day hikes to ambitious backcountry travel.

The theme is the interaction between humans historically, today and into the future with the North Cascades. Editor William Dietrich leads the reader on a journey of exploration across the mountains and through the human history of the North Cascades, from the Native Americans and fur trappers, to traders crossing the passes, to the fire lookouts on the peaks and prospectors panning for gold in the streams. As well, individuals who have been intimately caught up in the history of the North Cascades, from mountaineering icon Fred Beckey to our own Polly Dyer, are profiled.

But the real power is at the end of Dietrich's essay "The Future of Conservation." He points out that while 2.7 million acres of mountain wilderness have been protected, in many cases these areas are disconnected. Lower elevation valleys and streams that for political/economic compromise were left out of the initial areas, bisect the terrain, chopping it up and isolating small pieces of the ecosystems. To preserve the North Cascades unimpaired for future generations, we need to bring those areas into protected status, completing viable ecosystems.

Don't buy this book just to put it on the shelf to gather dust. Take it out and use it! Striking photographs of as-yet unprotected areas are identified and keyed to a map. To advocate for these places in the wild nearby, share the pictures and essays with your friends and neighbors, and lobby your legislators to take action to save these incredible lands while there is still time.

*The North Cascades:
Finding Beauty and Renewal
in the Wild Nearby*

Braided River Books

Publication date: October 2014

**Attend the launch party on
October 10 at 7:00 pm at
The Mountaineers' Magnuson
Park Program Center**

How to own the North Cascades Highway:

A review of Jack McLeod's The North Cascades Highway: A Roadside Guide to America's Alps

by Philip Fenner

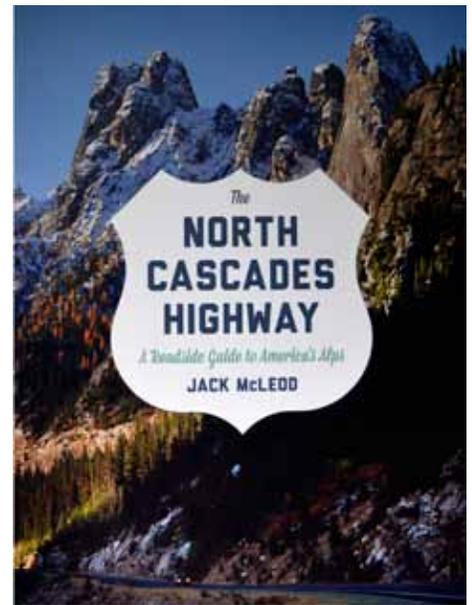
If there's any truth to the idea that ownership in fact derives from knowledge and appreciation of a place rather than in property deeds and titles—an idea David James Duncan proposes in *My Story as Told by Water*, riffing on William Kittredge's polemic *Who Owns the West?*—then NCCC member Jack McLeod's eloquent and visually stunning guide to *The North Cascades Highway* gives him ownership. And it puts him among a select few with such knowledge and passion, folks like Saul Weisberg, Jon Riedel, Harvey Manning and Rowland Tabor. McLeod manages to meld Weisberg's eloquent and lyrical style and Tabor's detailed earth observations, quite a feat in itself. I'm envious of his photographic and writing skills and how perfectly they come together in this beautiful book, equally at home on the coffee table and in the passenger seat. And he teaches at Cascade High School in Everett, where NCCC co-founder Phil Zalesky taught, a happy coincidence. What lucky students he must have.

I grab any book I hear about that tries to explain the North Cascades' twisted and crumpled geology. Sometimes referred to as a "terrane wreck" among geology buffs, it's one of the most complex parts of the earth's crust to describe. At first glance I was a bit disappointed that McLeod doesn't offer the depth of geologic explanation that I was used to from the likes of Tabor and Haugerud's *Geology of the North Cascades: A Mountain Mosaic*, for instance. But as McLeod's graceful prose grew on me, I realized that with any book about science that's aimed at the public, the gray area between simplification and oversimplification is a huge challenge to navigate. McLeod's text sometimes glosses over some of the geology, in my opinion, but for the average driver his prose is probably about as scientific as it can get and not cause the pages to be flipped after the first paragraph. So it should reach a wide audience, who can then pursue more detailed publications which he lists in his bibliography. NCCC members can be proud that both McLeod and Tabor are both fellow members! They exemplify why

I joined NCCC - to be in the company of keen observers.

Then there's the conundrum that this particular highway itself represents to conservationists, the trade-off between making wild lands accessible to vehicles and defacing the very beauty the road makes accessible to motors and wheels. The long-standing plans to build what was then called "The North Cross-State Highway," and the shock of chainsaws, dynamite and bulldozers as they attacked the formerly quiet, pristine backcountry to build it, were a main impetus of the movement that NCCC spearheaded to finally bring a National Park to the wild core that the highway punches through. That whole story is in Harvey Manning's *Wilderness Alps: Conservation and Conflict** of course, but McLeod grabs this old hot potato deftly in his opening chapter where he describes the "Highway Paradox." The highway could have easily become a trunk line for hundreds of spur logging roads, hydro projects and mines. Even a Park didn't rule out new spur recreational roads. That was all prevented by Park and Wilderness advocates organized by NCCC, and perhaps the Park/Wilderness wouldn't be here today if folks hadn't been so shocked by a highway being cut into the very heart of the wild Cascades. But the highway is there, and it will take you through 'the heart of the wild' by car, although as McLeod quotes Jon Riedel, "You need to get on your feet to really experience this place."

The body of the book nicely steps you across the North Cascades Highway route from west to east, although I would have liked more detail in the little schematic maps in each individual trip segment. Those maps have just 4 landmarks along the entire route to figure out where the "You Are Here" star actually is. And the stops aren't placed on the overall map in the front. McLeod provides the mileage marker numbers, starting at 100 near Marblemount, which are useful if you can spot them along the road. From a practical standpoint, I would try to remember to hit my trip odometer button at the first stop at milepost 100 and use it (+100) to track



my location. There's no way to use your odometer to count the miles down from east to west, though, so a second series of mileage numbers counting west from Mazama would have been very helpful. But these are minor practical issues - and with a calculator one could easily get those numbers and just jot them in the book before starting.

My favorite sections of the book are actually the Appendices, which are extensive and detailed. I'd read those first! But McLeod was probably right to start his book with the full-immersion approach to guided discovery, then answer the readers' questions in the 20 pages of appendices afterward.

The late NCCC member Dr. Fred Darvill, Jr.'s little pocket guide to Highway 20, published in the mid-1980s and including a geologic explanation that predated plate tectonics—has long needed a modern, thorough and more visually appealing replacement, and here it is. We can't thank Jack McLeod enough for taking ownership of The North Cascades Highway - and all of us who cherish the land it passes through will own more of it, too, after we read this book and see that familiar landscape in new ways.

**Wilderness Alps* is available at our online bookstore, www.northcascades.org/wordpress/wild-alps-book.

*The North Cascades Highway:
A Roadside Guide to America's Alps*
Jack McLeod
University of Washington Press
\$26.95

NCCC joins FFCC to advocate for forest management to protect climate

The Federal Forest Carbon Coalition (FFCC) is a broad-based national coalition that encourages federal forest management agencies to manage forests in ways that protect the Earth's climate. According to its website, the FFCC's focus includes minimizing the release of greenhouse gas emissions, optimizing carbon sequestration, and generating co-benefits for biodiversity, watersheds, nutrient cycling, and humans here and abroad, now and in the future, in just and equitable ways. For-

est management practices that minimize climate impacts will help reduce the impacts of climate disruption in the U.S. and abroad. They will also help conserve critical ecosystems and habitats and reduce the impacts of climate disruption on forests, biodiversity, watersheds, and communities locally and around the world. Managing forests in ways that help regulate the climate is thus a deeply moral obligation as well as an economic and environmental responsibility for our nation.

Forty Years

Continued from page 11

would have encompassed 33,200 square kilometers. Thirty percent of that lies in federally protected land: National Park, Wilderness, National Recreation Areas, etc. Most of the protected lands and much that isn't protected are scenically priceless, and all the land is fascinating geologically. Completed maps of the area have been in demand: private citizens, resource companies, geologic researchers, and land managers, both private and public, all use our maps for a variety of purposes. Wise land use is supported by geologic study; we can say *a priori* that every geologic study begins with the geologic map.

But the era of U.S. Geological Survey general geologic mapping in the North Cascades will come to a close on October 1, 1995. Declining budgets have forced geologists to concentrate on the most pressing geologic hazards, generally in populated areas. Mountain geologists have not been defeated by terrain, difficult geology, the Wilderness Act, or land managers, but by a society that wants everything right now and has created a political climate wherein Congress wants that too. There is little tolerance now for work that must be in rhythm with the geologic time scale.

Rowland Tabor's 2014 comments:

A summary of the geology of the 8 1:100,000 scale quadrangles referred to in this article is available in Haugerud, Ralph A. and Tabor, Rowland W., 2009, Geologic Map of the North Cascade Range, Washington: U.S. Geological Survey Scientific Investigations Map 2940 (<http://pubs.usgs.gov/sim/2940/>). Look for more detailed maps at <http://geomaps.wr.usgs.gov/pacnw/nc/index.html>. The two references mentioned in the article are *Staatz, M., Weiss, P.L., Tabor, R.W., and Robertson, J.S., 1971, Mineral resources, Pasayten Wilderness area, Washington: U.S. Geological Survey Bull. 1325, 268p.* and *Staatz, M., Tabor, R.W., Weiss, P.L., Robertson, J.S., Van Noy, R.M., and Pattee, E.C., 1972, Geology and mineral resources of the northern part of the North Cascades National Park, Washington, U.S. Geological Survey Bull. 1359, 132p.*

An interesting side story to the mineral evaluation that we began making in 1966 began with a conversation that I had with Harvey Manning. Conservationists were all worked up about some claims in the Sulphide Creek Basin area. I casually mentioned to Harvey that they really ought to be worried about the south side of the Southern Pickets. That was all that I said to Harvey. There is considerable sulphide

mineralization along joints or faults in that area. Harvey mobilized the late Bobby Grant, who worked for Bear Creek Mining Company at that time doing exploration work in the North Cascades, and another climber (I think his name was Dale Cole). Bobby and Dale took the Bear Creek helicopter and flew low across the cirque above Goodell Creek dropping claim notices from the air. The claims were in their names, not the mining company's. I don't know if they attempted to register the claims with the Government, but they actually hadn't done enough to establish real claims, which need work on the ground. They just hoped to prevent someone else from staking claims. I don't know if they actually pre-empted other claims, or that their bogus claims were even brought up in the deliberations about the National Park.

I was a bit horrified when Harvey told me what he had done based on my statement, because USGS employees are forbidden by law to advertise mineral discoveries prior to general release to the public in Survey publications. The irony of this story is that our report, which would have been called *Geology and mineral resources of the North Cascades Primitive Area* and which would have informed potential claim seekers of the mineralization, was rumored to have been deliberately delayed by the Secretary of the Interior until after the Park was established. The final report was *Geology and mineral resources of the northern part of the North Cascades National Park, Washington*, as mentioned above. But I don't think the report was suppressed because of its specific content, but because the Secretary just didn't want anything, including an obscure report in press about the area, to slow down the forward movement of the Park bill.

Publications by R.W. Tabor

Routes and Rocks (online version of now out-of-print guidebook): geomaps.wr.usgs.gov/pacnw/nc/routes_rocks.html

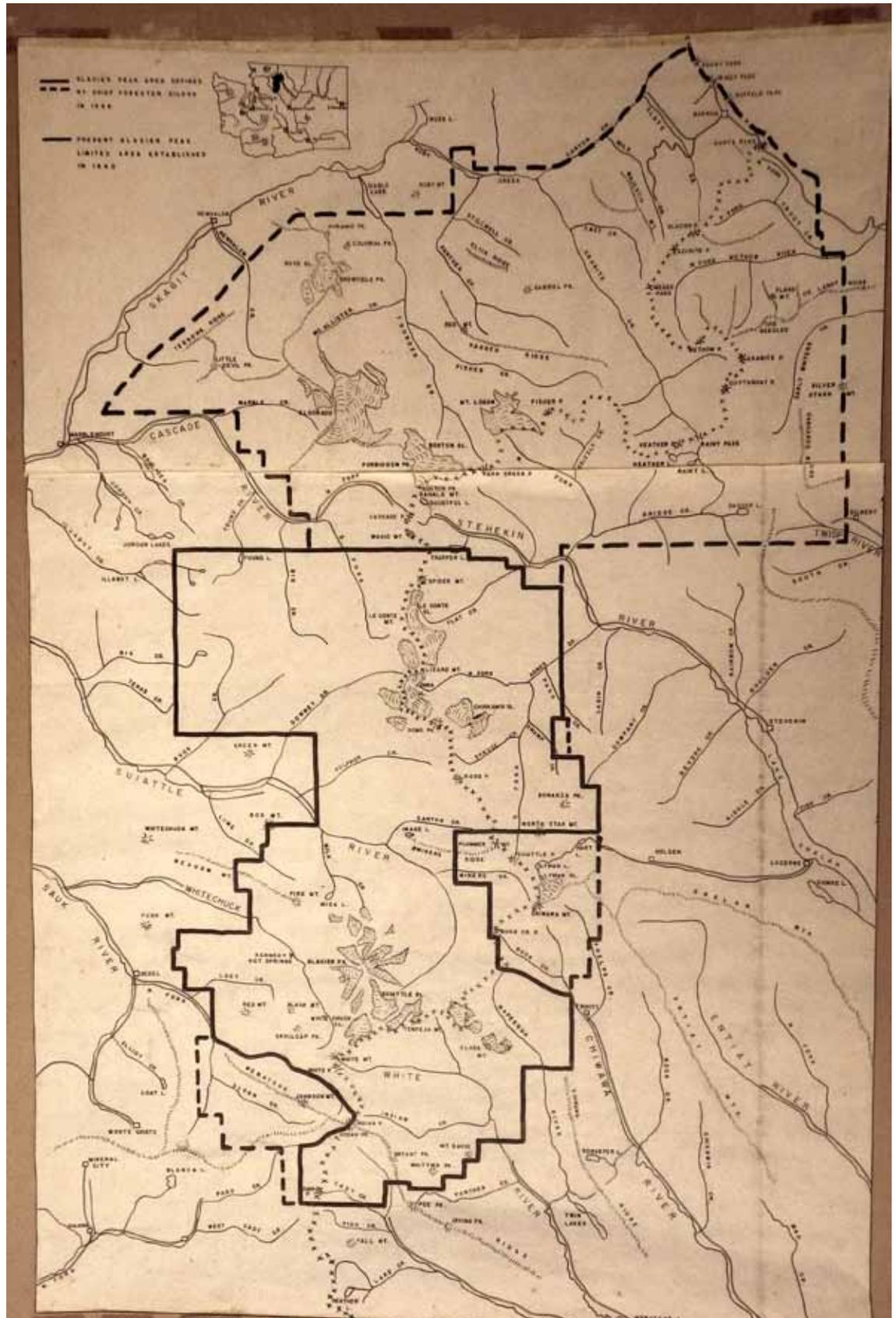
Geology of the North Cascades: A Mountain Mosaic: geomaps.wr.usgs.gov/parks/noca/

Geologic Map of the North Cascade Range, Washington. With accompanying pamphlets and photo presentation: pubs.usgs.gov/sim/2940/

How large should Glacier Peak Wilderness Area be?

A comparison map drawn by NCCC co-founder Patrick Goldsworthy advocating for a larger Glacier Peak Wilderness by comparing the then-current and relatively small USFS "Glacier Peak Limited Area" of 1940 to the larger 1939 "Glacier Peak Area defined by Chief Forester Silcox" (who died in 1939), which included what is now the south unit of North Cascades National Park. Hand drawn on vellum, perhaps one of the first maps Goldsworthy drew about the time NCCC was founded. Note the lack of a North Cascades Highway.

Read more about Patrick Goldsworthy's legacy at: <http://www.northcascades.org/wordpress/in-memoriam/patrick-goldsworthy>



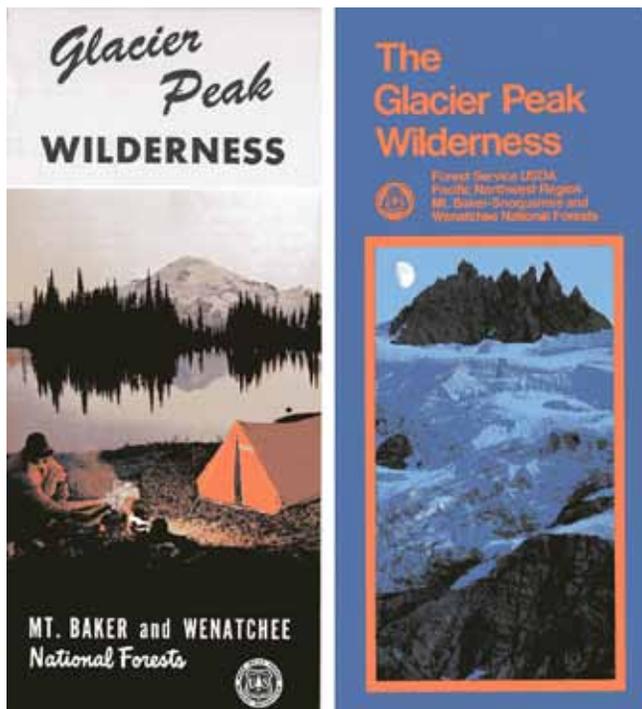
Celebrating 50 years of the Wilderness Act

Images of overuse

User impact—a concern today as many see Wilderness as more playground than sanctuary, fueled by gel packs and ultralight gear—has long been a concern, as these book covers and maps show. Watch how images change from 1960 to 2000!

1960

1980



Maps:

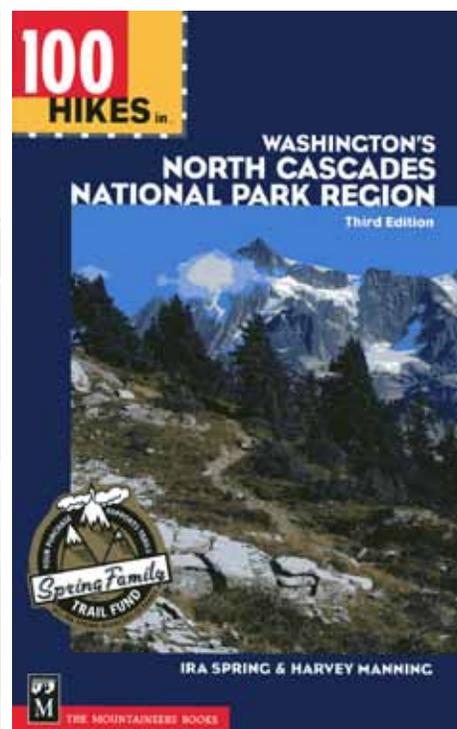
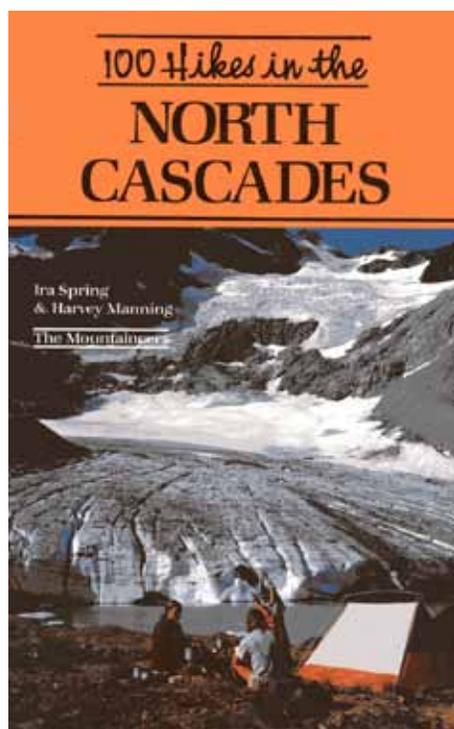
The first and second versions of the USFS maps of the Glacier Peak Wilderness show evolving awareness of recreation impact on Wilderness. The 1960 map cover photo (L) shows camping and campfire on shores of Image Lake with iconic reflection of Glacier Peak. This image enticed many to do the same thing. After recognition that campsites and fire rings were damaging sensitive lakeside meadows, ca. 1980 USFS map cover (R) shows a more forbidding photo of unnamed serrated peaks. USFS later relocated all Image Lake campsites to the slope beyond the south shore of the lake, and the shoreline meadows have since largely recovered.

1985

2000

Guidebooks:

The *100 Hikes* series for the North Cascades depicted camping on the shores of Lyman Lake in 1985, while by the Third Edition in 2000, a more generic cover photo of Mt. Shuksan was chosen. Lyman Lake campsites are now in the forest across from the trail. The size of the Lyman Glacier is also greatly reduced today from the 1985 photo! Note that a limited number of copies of the 2000 edition are available on our website's Bookstore page: www.northcascades.org/wordpress/wild-alps-book — scroll down to see the special offer.



Fall events celebrating Wilderness



NCCC is supporting the goals of the 50th Anniversary National Wilderness Planning Team (Wilderness50), a growing coalition of federal agencies, non-profit organizations, academic institutions, and

other wilderness user groups who are planning and hosting events and projects designed to elevate the profile of wilderness during the 50th anniversary celebration. Read more at www.wilderness50th.org

National Park Service - NCCC volunteer work party

When: Saturday, September 27—National Public Lands Day!

Where: Maple Pass/Heather Pass near Rainy Pass

What: Planting, seed collecting, weeding and/or trail work

For details, contact ncccinfo@northcascades.org

The Next 50 Years: Inspiring and Creating Modern Conservationists

The Seattle-area Summit celebrating the Wilderness Act

When: Saturday, October 11, 1:00 to 5:00 pm

Where: The Mountaineers Program Center, 7700 Sand Point Way NE, Seattle, WA 98115

What: Come experience learning sessions

on Wilderness, how to get out in it, and conservation work to protect these areas for future generations. Leave inspired to engage in Wilderness – from hiking to advocating!

For details, contact Katherine Hollis, katherineh@mountaineers.org or 206/521-6012.

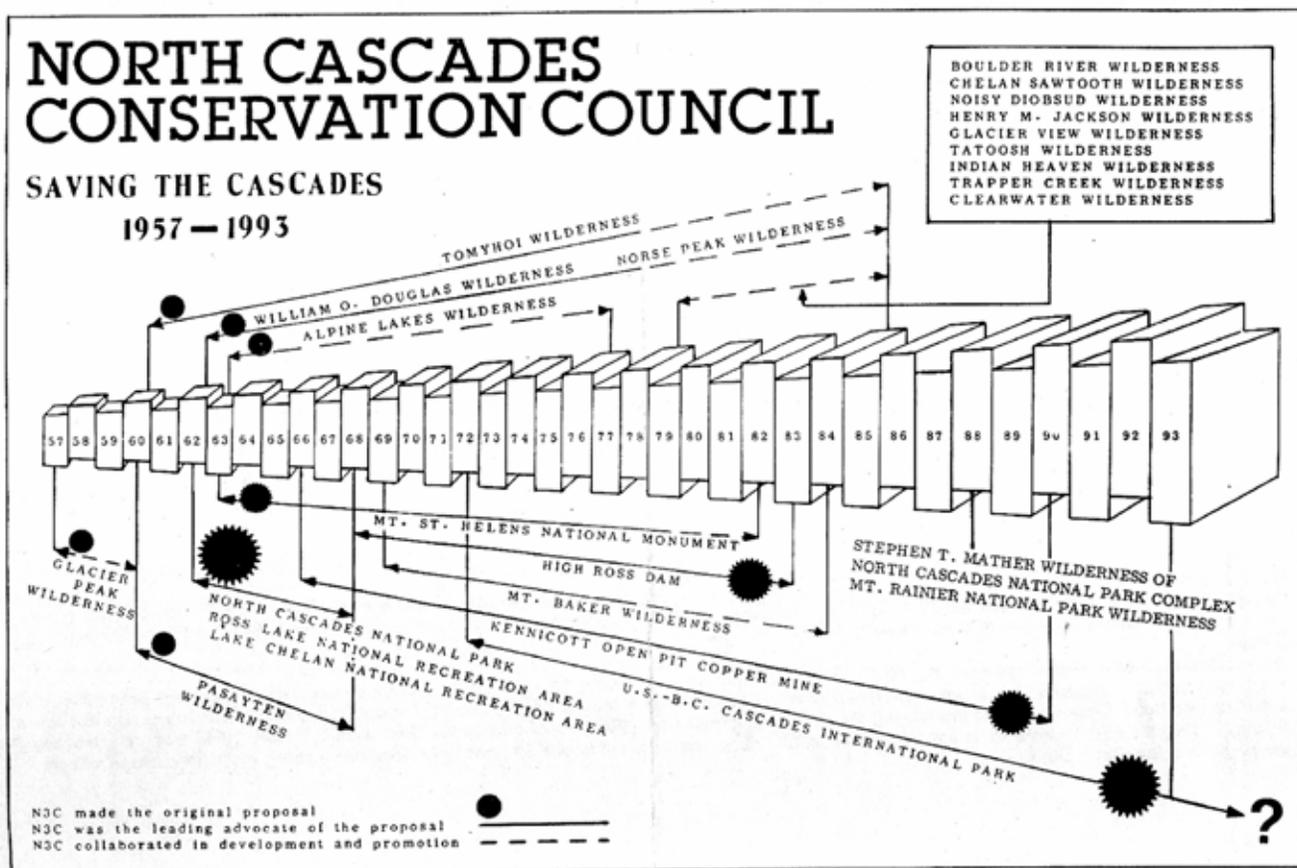
Launch party for *The North Cascades: Finding Beauty and Renewal in the Wild Nearby*

When: Friday, October 10, 7:00 pm

Where: The Mountaineers Program Center, 7700 Sand Point Way NE, Seattle, WA 98115

What: Celebrate a beautiful new book and advocacy tool! See review on page 14.

For details, contact Lace Thornberg, lace@mountaineersbooks.org or 206/223-6303 x120.



NCCC Timeline, drawn by Patrick Goldsworthy in the mid-1990s, shows all the most significant Wilderness and Park efforts we'd been involved in as of then. To bring it up to date, add Wild Sky Wilderness (complete) and American Alps (in progress)! Coming Soon — Alpine Lakes Wilderness additions!

The Corvid's eye

The Cascade River bottomlands in Skagit County are usually overlooked by the recreating masses as they hurtle toward trailheads for the photoworthy high country. Pretty spots like the overused Cascade Pass, as well as the likes of Hidden Lake and Monogram Lake, get the attention, so long as the road is passable. The deep forest along the mostly untamed river, if noted at all, might show up as a shadowy midground in the visitor's perception; trained as it is on snowy peaks, in much the same manner as a cathedral's floor mosaic is subconsciously registered by tourists otherwise looking with mouths agape toward the rafters. Beyond the occasional fisherman, whose thoughts are centered on his quarry, and perhaps the odd botanist, the lowlands are generally ignored. And so it's left to the corvid and his kin, whose senses are readily heightened by any suggestion of old forest, to explore and catalogue.

In 1882, the Pierce Expedition made its way down the Cascade River in foul weather, having begun the journey from an impressive distance away, at Fort Colville. The northern reaches of Washington Territory were at that time still young. From Cascade Pass to present-day Marblemount, the party noted only one indication of prior human use – a pair of Indian canoes on the riverbank. As Fred Beckey documented in his *Range of Glaciers* text, Henry Pierce described a walk of miles upon miles “through a thick forest of splendid cedars, pines (sic), and cottonwoods.” Fast forward to the corvid's visit over 131 years later, wherein human modifications to the Cascade valley over the intervening decades are plainly evident, most notably Forest Service road 15. Beyond this hiker expressway, however, the basin as a whole retains a remarkably primitive character.

The bulk of the upper Cascade's ample acreage remains unroaded and wild. Even where the Forest Service saw fit to sacrifice one portion to bulldozer and chainsaw across the FSR 1570 bridge in the Kindy Creek vicinity, the decrepit little road system is dwindling away. No longer does a road cross Kindy and Sonny Boy creeks, nor can one drive the approach to Found Creek in the opposite direction. Rewilding, a term which for some generates



unexplained anxiety, is happening rapidly here. The corvid occasioned to indulge in nearby groves of massive red cedar and Douglas-fir, adjacent to ever-shifting river bars just upstream of Found Creek, and declared it good. He was later made aware of a NCCC success story involving the defeat of a Forest Service logging proposal immediately east of Sonny Boy and across from Mineral Park campground. The original, magnificent forest there remains.

With such treasures in mind, it's puzzling in this day and age that many of those invested in outdoor recreation, even of the preferred non-motorized variety, seem more motivated to advocate for reconstructed fire lookouts and damaging forest roads through bucolic valleys than for the wilderness resource itself. Entire memberships and political systems are mobilized to facilitate and excuse human conveniences and comforts on what was intended to be self-willed land, while the number of individuals nowadays who get truly excited over the (re)discovery of old lowland forest, often loosely protected at best, may be counted on one's wingtip feathers and talons. Utilitarianism as first priority appears to have taken hold. Paul Kingsnorth, for instance, has lamented that many have turned away from the principle that “nature has some intrinsic, inherent value beyond the instrumental.”

Let's not mince words. The corvid loathes this trend, which will almost certainly be remembered with distaste in years to come. Such thinking, or lack

thereof, is a symptom of the sickness of our times, pervasively manifesting itself from collective apathy toward wild nature to our twisted economic model, and virtually everything in between. It's the ideology of “what's in it for me, near term?” To be sure, such prejudice has always had its adherents, though is now reaching a sort of crescendo. At the least, a modern zeitgeist that would blithely dismiss the outlooks of a reincarnated Bob Marshall, Rosalie Edge, or David Brower is bad for any and all involved.

“Leave it as it is. You cannot improve on it; not a bit. The ages have been at work on it, and man can only mar it,” advised our 26th president. At this moment, close by a remote meander of the Cascade River, a silent flush of vanilla leaf has emerged beneath somber, centuries-old cedar, radiating the subtle scent of its delicate flowers into a rich understory. Varied thrush are raising broods, issuing forth with their enchanting song of the gloaming, the finest of lullabies. A black bear sow is introducing her curious cubs to the skills necessary for making the most of their quiet existence on this extraordinary planet. The cycle of the mystery of life continues unabated where wild nature still holds sway, presently limited only by the shortsighted, selfish, and ultimately self-defeating actions of a certain biped. Ensuring that as much of the land and waters as practicable are untrammelled for the benefit of our wild cousins is a moral philosophy in great need of reinvigoration.

Cascade rambles: *Foothill fancy*

by Rick McGuire

It is a question that probably few rambles have pondered as they wander about the Cascades: how many foothills have survived in an at least partially unlogged and wild state along the western front of the Cascades, from, say, Mount Rainier north to the border? This Rambler knows of only two. These are Haystack Mountain south of Gold Bar and west of Mount Persis, and Mount Ditney, anchoring the westernmost end of the Boulder River Wilderness.

Before one can even make such a list, it is probably good to form some sort of idea as to what actually makes a “foothill” as opposed to a “regular” mountain. For the western side of the North Cascades, this Rambler would suggest that a foothill is entirely below timberline. While there may be an opening or two, a foothill is fully within the forest zone, and not in the subalpine zone. Forests grow on its high-elevations, or did so in the past.

One might also assign an elevation limit, with 5000 feet being about the cutoff point for continuous forest on the west side of the range. The number would be substantially higher on the east side. Some might also say that a foothill is a foothill because it has visibly gentler topography than the mountains standing behind it: smooth and curvaceous instead of jutting and jagged. There may be no single, universally agreed upon, textbook definition, but you know a foothill when you see one.

And just about all the ones you can see have been logged from bottom to top. High-elevation westside Cascade forests are generally comprised of not very valuable species, silver fir and hemlock, often called “white wood.” In an era of cheap fuel they were still worth cutting, and just about every one of them was skinned bare. Thus our two survivors, Ditney and Haystack, stand out for their rarity. They might otherwise be unremarkable, but their status as the last of their kind gives them great interest to a certain perverse kind of Rambler.

Wildness seems to somehow be able to survive on a mountain if its upper part escapes logging, in a way it never can if the top is logged, even if lower parts are left intact. There is no substitute for having nothing but undisturbed wildness above one. The water runs down clear and clean from on high, and one drinks it without a

thought. It may be an island, a small island even, but it is a wild island.

A few other Cascade foothills have retained some ancient forest on their flanks, such as at Arlecho Creek in the South Fork Nooksack drainage west of Twin Sisters, some places in the Finney Block, and one or two others. But those forests are all downhill from roads. They are interesting and worthwhile, but they don't feel very wild. Once you reach the ancient forests on upper Haystack or Ditney, with no roads above, you are in a wild place, and feel like you are above everything that is tawdry and unpleasant.

Haystack Mountain stands at the very western edge of the Cascades south of the Skykomish River. The top is an island of National Forest ownership and old forest, cut off from the main body of the Mt. Baker Snoqualmie. As such, it was considered for inclusion in the Huckleberry Land Exchange in the early 1990s. That would have meant getting traded to Weyerhaeuser, and having every tree cut. Early and vigorous objections by NCCC and the Alpine Lakes Protection Society convinced the Forest Service to look elsewhere for lands to trade away.

Thus these three and half or so sections of public land atop Haystack stayed in public ownership. The Forest Service carried out one small timber sale at its bottom end during the 1980s, but other than that there has been no logging. At least 1500 acres of old growth survive there, the closest such forest of any size to Seattle. Heavily logged “industrial forestlands” stretch away from it in every direction for miles.

Haystack's forests are typical of the upper forest zone in the western Cascades. A very few Douglas firs hang on in the lowest elevations on its south side. Most of it is silver fir, and both western and mountain hemlock. A few high benches on its

northeast side are home to some short but massive Alaska, or yellow, cedars. These gnarly and impressive old survivors may exceed 1000 years in age.

This high island of untouched forest, topping out at about 4300 feet, seems to host an unusual amount of wildlife: ravens, mountain goats, and one of the last nesting refuges for marbled murrelets near Puget Sound. And few people even know it exists.

Thirty or so miles northwest from Haystack stands our only other unlogged foothill, Mount Ditney. It forms a sort of high plateau between the Boulder River and Canyon Creek valleys. Clothed in unbroken dark forest, in certain light conditions

it stands out prominently all the way from south of Everett up to west of Arlington, nearly the last of its kind.

The woods on Ditney are a good example of why some early writers described certain Cascade forests as “gloomy.” Little light makes it through the dense canopy of silver fir and hemlock. These high, dark forests are best experienced on the kind of spring days when clouds seem to brush the tree-tops, and varied thrushes sound their melancholy note.

Ditney probably now holds more of these forests than any other place in the Cascades. Reaching up to around 4500 feet, they are the same forests that former Mt. Baker Snoqualmie Forest Ecologist Jan Henderson has described as the “coldest and wettest in the conti-

ental U.S.” If fire has ever burned there, little evidence remains. Silver fir has thin bark and cannot tolerate any fire, so its presence means a place that has seen no fire for a very long time.

Early Forest Service men such as Harold Engles used to refer to the area between the North Fork Stillaguamish and Mount Pilchuck as the “Verlot rainforest.” Another name was the “asbestos district.” The area often sees the Puget Sound convergence zone, giving it the highest rainfall in the Cascades. It is the first place to be hit

Not so many years ago, most gentle foothills in front of the high Cascades were cloaked in dark green. Now rambles have only two left, but they are well appreciated, even loved, standing as they do amid cutover landscapes stretching for miles in every direction.

Continued on page 22

Yet another dam threatens Similkameen River

by Rick McGuire

The Similkameen River, which flows from headwaters in Manning Provincial Park in British Columbia and the Pasayten River in the U.S., is now threatened by yet another dam proposal, this time not far upstream from Princeton, B.C. Fortis, Inc., a private utility company, is proposing to build a very large dam, 200 meters high and 477 meters long. This monster would, under “optimal” conditions, impound a 750-hectare reservoir. But the Similkameen is not a large river at this point and its watershed is not an area of heavy rainfall. It is hard to see how such a large reservoir in such an area would reliably fill.



Site of proposed Fortis dam on Similkameen River upstream from Princeton B.C. —KEN FARQUHARSON PHOTOS

But that may not greatly concern the dam promoters. As is usual with these kind of projects, all kinds of benefits are being touted. Electricity generation, flood control, and “flow shaping,” meaning release of more water during summer than is natural. And costs, as usual, are being downplayed or ignored.

In a shocking development, the Washington State Department of Ecology has given \$1.6 million dollars of taxpayers’ money to Fortis to study the “benefits of flow shaping.” Considering the way the Dept. of Ecology pushes so many destructive water schemes, here and elsewhere, its name often sounds like it came out of George Orwell’s classic

work “1984.” It seems to back every kind of destructive water scheme imaginable. Foremost among these is the \$5 billion “Yakima Integrated Plan”, a huge subsidy for agribusiness irrigators.

It is feared that the water storage potential of the Fortis dam at Princeton might, if built, add to the case for rebuilding the Enloe dam far downstream. The Okanogan P.U.D. wants to rebuild this old dam at Similkameen Falls, which was abandoned decades ago as uneconomic.

The Similkameen has suffered from a number of crazy damming schemes. About seven years ago Okanogan P.U.D. floated a plan to build a large dam at Shanker’s Bend, which would have flooded a large area in the Similkameen valley, extending well into British Columbia. They did not bother to tell anyone in B.C. about this, which raised questions about the seriousness of the scheme, but it seemed like a real threat at the time. (See *TWC* Winter 2007-2008 for an extensive look at the Shanker’s Bend dam proposal and the Similkameen valley in general.)

That plan was subsequently abandoned, but many observers believe that Okanogan P.U.D. suffers from “dam envy,” since it does not itself possess any large dam as do neighboring P.U.Ds in Chelan and Doug-

Cascade Rambles

Continued from page 21

when rain comes, and the last place for the clouds to clear.

The Ditney forests cover a much larger area than those on Haystack, extending for several miles on top, and down into the Boulder River valley to the northeast. Most of the area is high enough to where it is not especially brushy under the canopy, and much of the terrain is fairly gentle. Thus it is not particularly difficult to walk around on its higher elevations. The forests are mostly continuous except for a few small wet meadows and tarns. None of the openings are anywhere near big enough to afford any views, and there is little, other than dark forest, and a strange summit name, to attract the masses.

Thus Ditney is another forgotten place. It is a long way from anywhere, and with Road 41 to Tupso Pass sinking into abandonment like so many other Cascade logging roads, Ditney is getting even more remote. A spur road off 41 used to hook far around to its western side, but it hasn’t

been drivable for many years. The Forest Service in the early 1980s had plans to push roads all over the top of Ditney and cut whatever merchantable trees it could find, surely one of the worst, and most uneconomic timber sale ideas it ever had, and it had many.

NCCC mobilized to stop that crazy sale, and it was finally put to rest when most of Ditney became part of the Boulder River Wilderness in 1984. The Forest Service tried to exclude it from the Wilderness but failed, so Ditney was spared the fate of every other foothill except Haystack, and did not become just one more clearcut.

Mount Ditney, and Haystack stand as the last of their kind amid the logging that has claimed every other west Cascade foothill. Not so many years ago, most of those gentle foothills in front of the high Cascades were cloaked in dark green. Now rambblers have only two left, but they are well appreciated, even loved, standing as they do amid cutover landscapes stretching for miles in every direction. Perhaps some other rambler out there believes he knows of another? Nominations are welcome.

Continued on page 27



Holly time bomb in NW forests

by Rick McGuire

On June 6 2014, the “Grand Hall” of the former seminary building at St. Edwards State Park was host to a gathering of people concerned about “English” holly, *Ilex aquifolium*. Once widely planted as an ornamental shrub or to screen off ugly neighbors, holly is still raised commercially by a few growers supplying a market for Christmas wreaths. A widely adaptable and vigorous plant, holly is becoming a frequent, and alarming, sight in western Washington forests.

Many observers and researchers are concerned that holly, nearly a century after it was first widely planted, appears to be reaching a critical mass “breakout point,” from which it will likely spread widely and rapidly. Left unchecked, holly could displace native species and turn large swaths of Washington forests into gloomy, dark, spiny thickets. Few if any native species are apparently interested in eating its sharp, multipointed leaves, and little can grow in its sterile, rot-resistant leaf litter.

Birds eat the berries borne on female plants, mostly in winter, and appear to be the main vector for seed dispersion. It is thought that about one in ten wild seedlings will be female. Berries are seldom seen on plants growing in forests, and it may be that plants growing around houses and in holly orchards remain the main source of seeds, which birds can carry for miles. More information is needed about how holly spreads. One large orchard at the western foot of Mt. Si is probably responsible for the terrible infestation in the forests on the western slopes of the Mt. Si Natural Resource Conservation Area, where holly is invading patches of remnant ancient forest.

Even in its native Europe, holly is considered unattractive. Thought to have

evolved in the Balkan peninsula and nearby areas, it has since spread across most of Europe, and to the alarm of many is now moving into Scandinavia, perhaps aided by climate change. Its waxy leaves are highly flammable, and it has a great ability to grow back following cutting or fire, not surprising considering its Mediterranean origins. Holly’s flammability and small tree stature make it a perfect ladder fuel. If it spreads widely through western Washington forests it will significantly raise the risks from fire. This would have grave implications for these forests where fire has not previously been a threat.

The St. Edwards Park gathering was sponsored by UW Bothell professor David Stokes, who investigates the holly invasion in NW forests. Presentations were made by a number of groups and agencies working on the problem. Holly’s ability to grow back from a stump makes cutting largely ineffective. It can be dug up, but that can be very difficult, and great care must be taken to insure that all roots have been eradicated. Herbicides seem about the only cost effective way to knock it back, and many presenters shared their success with various means of application. Mechanisms that fire “bullets” of herbicide seem to be the best solution so far for killing holly trees too big to dig or pull out.

Some species, like black locust, *Robinia pseudoacacia*, seem to fit in and behave well even where non-native, but all too often non-natives turn into invasive monsters. It can take a very long time before organisms in their new habitats begin to keep them in check. Creosote bush, or greasewood, is a scraggly looking bush that grows across immense areas of Great Basin deserts and arid lands, often forming near-monocultures. This “natural” invasive apparently arrived about 8000 years ago, somehow travelling from south-

ern South America, and spread rapidly across what are believed to have been arid grasslands prior to its arrival. Even after only 8000 years, few native organisms are keeping it in check. If greasewood is any example, we could be in for a long wait for native NW organisms to include holly in their diet.

While many people are working to check the spread of holly into Washington forests, much more is needed. Official recognition by the state that holly is an invasive pest is a necessary step that has yet to happen. A previous attempt to list it was unfortunately beaten back by a handful of holly growers even though it would not have affected their ability to continue raising it.

Volunteers and a number of paid employees and contractors have been hard at work combatting holly from Seattle parks to the Cascade foothills. They do good work, but it is difficult for them to get very far from roads and trails, while holly is spreading across the entire landscape. It may be time to consider some sort of biological control. Some organism or organisms keep it in check in Europe, and it might be possible to bring some of them here.

The concept of biological control of invasive species has gotten a bad name because of some spectacular failures in the past, where organisms imported in hopes of controlling invasives turned out to be worse than the original problem. But biological control has succeeded in many cases. Might it be possible to genetically engineer organisms to minimize the dangers? Whatever methods are used, much more needs to be done, and soon. Holly is now the most numerous tree species reproducing in Seattle parks. It would be a disaster to let it take over the forests of the Cascades.

Cascades trip report:

10 YEARS AFTER: Revisiting S Mountain

by Tom Hammond

Last year, as I considered places to explore in our North Cascades for my annual “4th of July” trip, it occurred to me I hadn’t been to Cache Col and the amazing spectacle that is the heart of wilderness in 10 years. Here is a place where I could properly celebrate 50 years of the best of what conservation has to offer—the col marks the interface between North Cascades National Park and the Glacier Peak Wilderness Area, established as law in 1964.

You might ask how I could “explore” a place I’ve already been. Well, consider that in my entire life, I’ve spent all of two nights at Cache Col. It’s kind of like saying that because we’ve landed a dozen men on the moon we know all about it.

Cache Col is a very impressive place—formed by the jagged arms of Magic Mountain and Mix-up Peak, this tiny piece of relatively “flat ground” sits at 7,000 feet elevation atop the Cache Glacier on the crest of the range. The col proper usually sports a nice cornice—perfect for camping, especially considering it is part of and has tremendous views of the crystalline core of the North Cascades, replete with hanging glaciers, lakes, crags and deep forested valleys for dozens of miles in every direction (*see back cover*). As fate would have it, not another person made it to the col for the next three days. I lived at the top of a glacier, surrounded by high peaks, low valleys and some of the most remote country in the lower 48 states, my only neighbors a couple of Ptarmigans and one mosquito—but I get ahead of myself.

I was out of bed at 04:50 Saturday to beat the heat. But wait! Instead of record highs in Seattle, it was sprinkling! If it was wet in the Whulge, it would be beyond scary in the Cascades, and a glance to the east confirmed my fears—a black wall of T-storms. Early morning forecasts called for thunderstorms to intensify. The most frightened I’ve ever been in the hills, including a couple of falls and some avalanches, was when lightning was present... suffice it to say I’ve been touched by St. Elmo’s Fire. I almost turned around three times as I drove to Cascade Pass. I’m not sure why I kept going, but I’m sure glad I

did. I ended up savoring one of the great atmospheric displays of orographic lift, subsidence, and all that comes from the interaction of the largest fetch of water in the solar system, the air we breathe and the improbably jagged landscape that is our North Cascades!

There were crowds by my standards on the trail to Cascade Pass. A family of five (three kids around age 12) had a wide-eyed expression of fear as they hurried down the trail. I asked if they’d had any lightning—yep, and more was on the way, so they were headed home! Then there were the four young men I met at Cascade Pass as they came off Sahale Arm. These 20-somethings were loaded for bear—anchors, pickets, the works! I asked if they’d summited Sahale, and had there been lightning? No, and yes. They were getting out of there! At this point the route to Cache Col gets very unpleasant: a steep traverse around the north side of Mix-Up peak features objective dangers (avalanche snow and falling rock at random from above) and subjective dangers (cliffs below such that one misstep can result in an end-of-life fall). To my amazement at the crux point of this traverse, here comes a solo guy on his way home! Our encounter was comical given the situation—I’m perched on the front-points of my crampons, ice axe rammed in as an anchor, visiting with this guy from Orcas Island in the same stance as though we’re in the grocery store. “Seen much lightning?” I asked. “Everywhere and all around” was his reply. We both looked skyward as the rain intensified. We wished each other a happy holiday, and onward and upward I went! It occurred to me if I’d seen this many people already, and the weekend was just getting going...well perhaps camping at the col was not in the cards regardless of lightning.

The ascent of the Cache Glacier to the col is lovely. Alpine strolling at its best—not life threatening, just a rolling terrain of ice that steps up to a tiny notch in the otherwise continuous wall of fins and vertical rock on all sides. The cornice at the top of the glacier was about 30 feet high in some places—this would be an interesting challenge with a full pack on! The upper

section of the glacier has a real bergschrund (which was melting out quickly in the record heat)—this marks where the glacier ends and the cornice of snow begins, and where the vertical portion of the climb is. The slope angle to the ‘schrund was about 30 degrees, but at the interface to the cornice (a widening gap that one can fall in to and never come back) it steepened to about 70 degrees for two and a half meters, and then another 2 meters of vertical! The snow was in great shape, but as I front-pointed up, I wondered how I was going to get back down. No time to worry about that—I had to get over the top lip. I cut a small V with my ice-axe and hefted myself over!

Camp was set on the cornice, as the surrounding rock crags offered some measure of protection from the expected lightning. Truth be told, as soon as I got to the col and could see south (where the weather was coming from), I could tell the storms were done—I was up on high and safe! It took me 4.5 hours to do the route 10 years ago—and took me 5 hours this time. While the tent was on the Middle Cascade River side of the cornice, I pulled my drinking water from the side overhanging the Cache (Stehekin headwaters). In one step I was going from waters bound for the San Juan Islands to water bound for Astoria, Oregon.

I mentioned the interplay of ocean, atmosphere and landform. Saturday evening provided some of the best interactions I’ve ever seen—living on the crest between the Cascade River and the Stehekin River will get you that. As the sun went down, the air cooled, causing clouds to form right at the surface as winds pushed the moisture-laden air over the peaks—the process known orographic lift. Lenticular clouds were on all of the summits, with mists and vapor forming right there on the snowfields. Meanwhile, clouds (moisture) that had been high in the sky in the form of building convective cells now settled and flattened, lowering to the levels of the summits (subsidence). Thus, I had clouds forming at my feet at the same time other clouds were saucering in from above. I was living in a gap between clouds, the wind pushing both layers by at great speed—

mountains and glaciers visible near and far in the gap! Sunlight reflecting off the snowfields and glaciers was tinged orange, which in turn illuminated the clouds with all the shades of alpenglow—I was literally living in the fuzzy stuff of which great sunsets are made. After sunset the clouds filled in at my elevation—I could see out of the clouds by looking straight up but was otherwise engulfed with zero visibility. Perfect timing for darkness, rest and sleep. Oh, the icefalls off the NE side of Mount Formidable avalanched pretty much continuously the entire time I was there.

Summit day

Sunday dawned brilliant—not a cloud in the sky. The ascent to S Mountain (aka Hurry-up Peak) was pleasant, most of it done with crampons. In 2003 there was less snow. 2013's increased snowpack was reflected in the large cornice at the top of the Cache Glacier, and also on the summit towers of S Mountain. Where 10 years ago was a delightful chimney of rock for some class 3 stemming, 2013 saw the chimney

choked with water ice and snow for a class 5 ascent (and more importantly, descent) on a 70-degree slope of snow and ice. It was only for about three meters, but one slip here meant certain severe injury, and likely death due to vertical nature of the knife-sharp rocks below the chimney, and the fact there wasn't another human being for miles. And then just below the summit, there was an area of simple friction climbing—not up, but sideways across a smooth rock face. Simple except when the rock is covered with about half an inch of water ice! I ended up hooking the pick of my ice-axe on the top of the plate of ice and swinging across the face.

I was so concerned about how to get down that I only spent about 45 minutes at the summit, compared to my usual hour or two. In my short time on the summit, I could see the amazing north face of Spider Mountain, down the deep valley of the Middle Fork Cascade River, and across the crest to the deep valleys feeding Lake Chelan. I marveled at how Johannesburg Mountain (should be renamed Cascade Mountain) is steep on ALL sides, and the grandeur of this most incredible

landscape. In a glance, I could see from Chelan to the Olympics, and from Tahoma (Rainier) to Canada. How can so many mountains fit in such a “small” (about 5,000 square miles) area? Then it was time to leave, to take on significant mountaineering descents, complete with legs shaking from fatigue—a time in which I found NO enjoyment. But I made it.

I go to the hills to have fun and live, not to put life and limb at very real risk. I've come to accept that climbing is a young man's game. Consider this: professional athletes lose effectiveness in their 30s. In their various playoffs they have to perform for one hour of actual game time, and really focus for three hours per event. Events/games take place every other day at most, and there are physicians and help in attendance. In climbing, the mental and physical challenge runs from four to ten hours per day, and usually goes for two,

three or four consecutive days at a time, with eating and sleeping only to “break even” for calorie loss. Also consider that when a baseball player makes an error, the result is a

run, or a base, or a mark on a paper. When a climber makes a mistake, the result is measured in broken body parts and even death. I recognize that to do summits like this now—summits that weren't a big deal when I was younger and my physical ability gave me the freedom to take chances and “get away with it”—I need to be in training all the time. But I do things other than backcountry travel, so I can't dedicate my entire life to preparing for the next summit. Of course I'll hike and explore—I just need to modulate exposure to those really pointy places.

I know I'll never trade the real world for the virtual world. I will, however, dial down the level of difficulty.

Some scientific notes

The fires that came through the middle and south forks of the Cascade River some seven years ago really ravaged the middle fork! I'd say 50 percent of the valley forests are burned and have barely started coming back, so steep is the terrain. Fortunately there is plenty of seed/feeder stock around, and many gullies are green with

trees that survived the fires. The entire middle fork valley was protected with the 1984 Washington Wilderness Act (high peaks protected in 1964 Wilderness Act).

There were ladybugs all over the summit area—something of a common occurrence in the North Cascades.

A family of ptarmigans (still) lives on the W flank of S Mountain—I scared them out at midday just as 10 years ago. They visited camp both nights, the second night was great. They were flying well after sunset, almost dark. I saw one backlit above a ridge—it went inverted as it crossed the ridge, and it was pretty windy!

The guy from Orcas Island made a point of describing the Cache Glacier as “covered” with ice worms on the cloudy, cool wet days. I saw quite a few on my first day, but none once it got sunny and warm other than a few after sunset.

I have never seen so much red snow. The algae is everywhere, and in far greater density than I have seen in 30 years of travel in the range.

The Middle Fork Glacier is both narrower and thinner at the ice-fall—comparisons of photos confirm this is substantial. The lower glacier still displays blue ice, but there was too much snow to get a firm grip on the true terminus situation.

The Spider Glacier is really two pieces (E and W) though the link between the two appears to be the same (snow cover may hide the truth). The big square “cut-out” on the W section terminus/icefall is still visually about the same as 10 years ago, while the glacier is thinner and does not extend downslope as far (not a big change). The waterfalls at the base of Spider Mountain are some of the best and highest in the entire range.

The S Glacier appears to be much thinner on the section running N. Indeed, it is a tapered (longitude) ridge of ice now, and the top has pulled away from the E flank of the N arm of the peak for some distance (longitude).

Close to the end of the expedition, just as I was finishing that terrible traverse of the north side of Mix-Up Peak, I fell on steep snow as I entered forest—I ended up with a raspberry/road rash on my left arm! Glad that didn't happen close to the summit.

Thanks to 2013's record heat, the melt-off of the snowpack had the rivers at flood stage across the range—the Cascade, Skagit, Sauk and Suiattle were all raging like it was October or April! It does not bode well for glacier mass-balance for the North Cascades.

“Seen much lightning?” I asked.

*“Everywhere and all around”
was his reply.*

Water users propose Icicle Creek water projects in Wilderness

by Gus Bekker

On December 4, 2012, the State Department of Ecology's Office of Columbia River (OCR) and the Chelan County Natural Resources Department (County) convened a meeting to form a Work Group to identify opportunities for improving the health of the Icicle Creek Basin for both instream and out-of-stream needs. Both OCR and the County feel that there are opportunities for collaboration on Icicle Creek water resource issues that would address some longstanding conflicts in the basin as well as provide solutions to future water issues related to the Wenatchee River watershed, of which Icicle Creek is a sub-basin. The vision of the facilitated Icicle Creek Work Group (IWG) is to find collaborative solutions for water management within Icicle Creek and to provide a suite of balanced benefits for existing and new water users. The IWG wants to ultimately develop a comprehensive water resources management plan that leads to implementation of high-priority water resource projects within the Icicle Creek sub-basin.

The County, operating under a grant from OCR, has developed a preliminary set of issues of concern in the basin with a list of projects that have been or are being considered that could address these concerns. OCR is charged with using money from the Columbia River Basin Water Supply Development account to address water needs within the Columbia River system. OCR is also in a position to request State capital funding for projects related to the Icicle Creek sub-basin. Fifteen organizations deemed to have a direct interest in managing water resources in Icicle Creek were initially invited to participate as IWG members. The U.S. Forest Service and the Alpine Lakes Protection Society (ALPS) were not on the original list of invited interests but have been attending IWG meetings since May 2013. The Forest Service later became a formal member of the IWG; ALPS declined to become a member, but is still monitoring the IWG and providing constructive input.

Of particular interest to ALPS is the "Alpine Lakes Optimization, Modernization and Automation project" (ALOMA) and the "Eightmile Lake Dam Restoration project" (ELDR) which are part of the Icicle



Eightmile Lake (above) and the decaying, nonfunctional dam at its outlet (below). —GUS BEKKER PHOTOS



Creek Comprehensive Water Management Strategy that identifies potential projects that could be implemented to solve some of the water resource issues in Icicle Creek and the Wenatchee River watershed. At the first meeting that ALPS attended in May 2013 we learned that the ALOMA and ELDR projects were on a list of ten possible "base projects" that together (all ten projects) were projected to provide a benefit of 69cfs and 22,500 acre-feet with an investment of around \$50 million and a cost per acre-foot of around \$2,250.

The ALOMA project is specifically designed to automate and optimize releases of water from six lakes located in the Alpine Lakes Wilderness (ALW). The six lakes are:

1. Nada Lake
2. Upper and Lower Snow Lakes
3. Colchuck Lake
4. Eightmile Lake
5. Upper and Lower Klonaqua Lakes
6. Square Lake

The current estimate costs to implement the ALOMA project is \$1.1 million with a net estimated benefit of 14.57cfs or 2,163 acre-feet of water.

The ELDR project proposes to restore the deteriorated, nonfunctional Eightmile Lake intake dam to allow storage of more water up to the permitted level. This would mean that the Eightmile Lake pool level would rise from the current 1200 acre-feet to approximately 2,000-2,500 acre-feet of stored water. The Icicle-Peshastin Irrigation District (IPID) claims to have the water rights to permit IPID to dam Eightmile Lake up to the 2,500 acre-foot water level. The current estimated costs to implement the ELDR project are \$1.2 million with a net estimated benefit of 8.7cfs or 1,300 acre-feet of water.

In late 2013, IPID had plans to draw down the water level at Eightmile Lake to evaluate the work needed to restore the dam. IPID has also stated that it is the "land owner" of Eightmile Lake and that it is going to "fix Eightmile Lake whether people like it or not." There is also some question as to whether IPID actually has the water rights it asserts, and the possibility that some water rights IPID may have once had were subsequently relinquished. In February 2014, ALPS recommended that the Eightmile Lake expansion project be removed from the IWG process and not treated as a consensus project, due to the many unanswered legal and factual questions about the extent and validity of IPID's current water right, and what expansion would entail.

At the May 2014 meeting of IWG, IPID said it is moving forward with its ELDR and ALOMA projects, will start to look at structural issues with the Eightmile Lake dam, and will soon apply to the Forest Service for permits for an ALOMA feasibility study. The study will not be looking at pool raise, and will cost \$200,000. IPID is also looking for funds for helicopter flights to the lakes, and wants to figure out how to automate the structures at each lake. Currently when a lake dam is opened by hand it takes approximately 24 hours to see the flow results downriver at the IPID intakes. IPID does not know what the refill rate is for these lakes, i.e., how much water can be released from the lake and still allow it to refill. The Leavenworth National Fish Hatchery takes water out of Snow and Nada Lakes and stated that it can take 50cfs/75 days and still refill those lakes.

At its May 2014 meeting, the IWG also decided to pay the manager of IPID a salary of \$25,000 for his participation in the IWG.

For more information on the Icicle Work Group: www.ecy.wa.gov/programs/wr/cup/icicle.html.

Similkameen River threatened

Continued from page 22



las counties. But Okanogan P.U.D. has access to plentiful cheap power from the Bonneville Power Administration, and enjoys low electricity costs. It has no need to pursue these crazy schemes other than providing work for P.U.D. employees and an army of highly paid consultants. Since abandoning the Shanker's Bend idea they have focused on Enloe, using all kinds of funny-money accounting tricks to justify that uneconomic scheme.

NCCC and other groups have been actively opposing the rebuilding of Enloe, recently winning a case before the Pollution Control Hearings Board when Okanogan P.U.D. tried to claim that removing almost all the water from the Similkameen River would have no effect on Similkameen Falls. No doubt the Fortis proposal will add a new wrinkle, and be used by Okanogan P.U.D. as justification for Enloe. NCCC and other conservation groups want to see the remains of Enloe dam removed, and the Similkameen River allowed to flow freely. NCCC plans to remain closely involved.



Enjoy The Wild Cascades? *Not a member yet?* Join **NORTH CASCADES CONSERVATION COUNCIL!**

Yes! I want to support North Cascades Conservation Council's efforts working on many fronts to establish new wilderness, defend our forests, support wildlife conservation and keystone species, and promote sound conservation recreational use. Be part of a vibrant grassroots network of

advocates for protection of unique lands, clean waters, native plant life, and wilderness of the North Cascades. You'll receive your copy of TWC three times a year.

Donate online at www.northcascades.org – just click "Donate Now" and use your credit card.
Or fill in this form and mail it to us at the address below.
Provide us with your email address and you'll receive our e-newsletter, the *Cascades Catalyst*.

Support the NCCC with a generous IRS tax-deductible contribution in the amount of:

- | | |
|--|---|
| <input type="checkbox"/> \$10 Living lightly/student | <input type="checkbox"/> \$200 Defender |
| <input type="checkbox"/> \$30 Individual | <input type="checkbox"/> \$300 Advocate |
| <input type="checkbox"/> \$50 Family | <input type="checkbox"/> \$500 Benefactor |
| <input type="checkbox"/> \$100 Supporter* | <input type="checkbox"/> \$1000 Patron |

\$ _____ Other

Please bill my Mastercard VISA for my contribution to NCCC

Name as it appears on card: _____

Account # _____ Exp. Date _____

Signature _____

* Donors at the \$100 level and above will receive a free copy of *Wilderness Alps* by Harvey Manning.

ALL donations include NCCC membership and a subscription to our journal, *The Wild Cascades*. NCCC is a 501(c)(3) organization. All donations are tax deductible.

Name _____

Address _____

City _____ State ____ Zip _____

Phone _____

Email _____

If paying by mail, send this form with check or money order to:

NORTH CASCADES CONSERVATION COUNCIL
PO Box 95980, Seattle, WA 98145-2980

THE WILD CASCADES

Journal of the North Cascades Conservation Council
Post Office Box 95980
University Station
Seattle, Washington 98145-2980

ADDRESS SERVICE REQUESTED

Non-Profit Organization
U.S. POSTAGE
PAID
SEATTLE, WA
PERMIT No. 8602



High camp at Cache Col, July 1, 2013. The col marks the interface between North Cascades National Park and Glacier Peak Wilderness Area. The first valley (Middle Cascade) was protected as wilderness 30 years ago, and everything visible beyond it was protected 50 years ago with the signing of the Wilderness Act of 1964. —TOM HAMMOND PHOTO