



The Clearwater DEFENDER

A publication of the Friends of the Clearwater | Summer 2023

Planned Disaster: Clearwater Carbon Emissions

The Nez Perce-Clearwater National Forests must account for carbon emissions in their forest plan. A new research paper from the Center for Sustainable Economy shows what that might look like.

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Judge forces USFWS action on grizzlies

The USFWS defended their 20 years of procrastinating on choosing an alternative for grizzly recovery in the Bitterroot. Now they will be forced to go back to the drawing board.

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"Green" Mine proposed for Bitterroots

As the intensity of the climate crisis increases, so does the desire for minerals for an energy transition, including in the most remote and wild country in Montana

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A fond farewell!

Friends of the Clearwater are sad to say goodbye to staff attorney Katie Bilodeau, who is moving to Washington (D.C., that is).

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Friends of the Clearwater
Keeping Idaho's Clearwater Basin Wild

Below: Ferns, FOC staff photo.

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Friends of the Clearwater
Keeping Idaho's Clearwater Basin Wild

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Friends of the Clearwater, a recognized non-profit organization since 1987, defends the Clearwater Bioregion's wildlands and biodiversity through a Forest Watch program, litigation, grassroots public involvement, and education. The Wild Clearwater Country, the northern half of central Idaho's "Big Wild," contains many unprotected roadless areas and wild rivers and provides crucial habitat for countless rare plant and animal species. Friends of the Clearwater strives to protect these areas, restore degraded habitats, preserve viable populations of native species, recognize national and international wildlife corridors, and bring an end to industrialization on public lands.

The Clearwater Defender welcomes artwork and articles pertaining to the protection of the "Big Wild." Articles and viewpoints in the Defender do not necessarily reflect the views of Friends of the Clearwater.

Friends of the Clearwater is a 501(c)(3) non-profit organization. All contributions to Friends of the Clearwater are tax-deductible.

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 Foundation,
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 Elbridge and Evelyn Stuart Foundation,
 and the Latah Wildlife Association!

Event Calendar

Summer field monitoring

Now - September, locations TBD
 Email foc@friendsoftheclearwater.org if you are interested in joining us for on-the-ground look at human impacts in Clearwater Country. No vehicle necessary!

July

21st-23rd - Great Bear Campout

Wilderness Gateway Campground,
 Highway 12 near Lowell

Join activists for music, presentations, and tomfoolery - all in support of grizzly bear recovery. Located on the stunning Lochsa River.

November

4th - Annual Meeting

1912 Center in Moscow. Potluck and auction.

Membership Dues Update!

After more than 15 years, FOC is increasing the cost of membership **from \$25 to \$35 annually**, starting August 1st.

Costs of living, even in rural Idaho, continue to rise, and we are committed to giving our staff financial security as defenders of the Big Wild.

If \$35 per year is out of your budget, we offer a "living lightly" option at \$15 per year (but please only select if you need to).

You can renew your membership at friendsoftheclearwater.org/donate



Don't miss a thing! Receive information to make it to all of our events and action alerts to comment on proposals on the Nez Perce-Clearwater National Forests:

www.friendsoftheclearwater.org/get-e-news/

CLIMATE THREAT OF THE PROPOSED NEZ PERCE-CLEARWATER FOREST PLAN

By Jeff Juel

In May of this year the Center for Sustainable Economy (CSE) released a study, “Climate Impacts of the Nez Perce – Clearwater Revised Land and Resource Management Plan.” The new report, commissioned by FOC and written by CSE Senior Economist John Talberth, finds the draft Environmental Impact Statement (EIS) for the draft Revised Forest Plan fails to account for life cycle greenhouse gas emissions, changes in carbon sequestration capacity, and changes in climate resiliency due to management activities. You may find this report on our website at friendsoftheclearwater.org/climatereport/

Results of the analysis provide preliminary estimates of increases in greenhouse gas emissions associated with logging, road building, and livestock grazing, which remain elevated over the long term as compared to natural, unlogged and ungrazed forests.

The greatest source of emissions (64 – 70%) are associated with the removal of CO₂ now stored in trees from the landscape, and its eventual escape into the atmosphere as wood products are produced, used, and then discarded. The report relies on scientific studies indicating natural forest areas are converted from being net carbon accumulators into carbon emitters for at least 15 years after logging, degrading their carbon sequestration capacity.

Estimates also include emissions of methane, a particularly potent greenhouse gas released by cattle, as well as the CO₂ from the fossil fuel energy consumed by livestock feeding operations, transport, downstream processing, distribution of meat to retailers and restaurants, and disposal and decay

of waste products.

The report also explains how logging, road building and livestock grazing are likely to amplify the effects of climate change by making the land more susceptible to heat waves, droughts, wildfires, wind damage, landslides, floods, warming waters, harmful algae blooms, exotic species, and biodiversity loss.

The report reinforces FOC’s 2020 comments on the revised Forest Plan’s draft EIS, in which we push the Forest Service to account for the role its management activities play in exacerbating the climate crisis. And unless the Forest Service makes an abrupt change of course and prioritizes a genuine climate friendly alternative, the new forest plan will conflict with the goals of President Biden’s 2022 Executive Order 14072 to “develop... policies to

Will the U.S. Forest Service keeps its head placed firmly in the sand of climate denial?

institutionalize climate-smart management and conservation strategies that address threats to mature and old-growth

forests on Federal land.”

At this crux in history, with climate crisis worsening seemingly unabated, the Forest Service’s actions will particularly highlight the character of the institution and its leaders. Will they respond to the ultimate challenge by objectively examining the science to become a part of the solution, or will they continue to pretend that resource extraction is sustainable for the ecosystems and the Earth’s climate?



Fires, like this on the Salmon-Challis Nat’l Forest, will increase in frequency and intensity as the climate warms. Logging emissions add “fuel” to the fire. USFS photo.

RARE EARTH MINE PROPOSED IN BITTERROOTS

By Larry Campbell

Recent corporate press releases announced that a deposit of rare earth elements in Sheep Creek, at the head of the West Fork of the Bitterroot River is being explored and promoted as a possible “green energy” mining opportunity. The deposit was discovered in the 1960’s and subjected to small scale mining. It remained dormant for about 50 years but has recently been revived by new owners, US Critical Metals Corporation, based in Vancouver, Canada. US Critical Metals is a shell company of Resurgent Capital, based in Toronto, Canada. Resurgent Capital offers specialized services to mining executives in need of pre-planned “exit strategies” should they be found liable for activities related to their mines. The shell holds 223 mining claims covering more than 4,500 acres, or

about 7 square miles, on the Bitterroot National Forest.

Rare earth elements (REEs) are a set of 17 nearly indistinguishable lustrous silvery-white soft heavy metals. Although similar in appearance they have very different properties and behaviors. They are not actually rare on earth, but they are rarely found concentrated in mineable deposits. Compounds containing REEs have diverse industrial applications in electrical and electronic components, batteries, lasers, glass, magnetic materials, and industrial processes. Often found in combination with other members of the REE group they can be very difficult to separate.

New US government policies promoting rapid transition to “green energy” and electrical transportation along with tax subsidies have created a boom

in exploration for and development of domestic REE and other “critical minerals”, especially since existing REE sources have been concentrated in China. In the rush to develop new domestic supply chains the US government has enabled expedited permitting procedures, both through Executive Orders and legislation. Additionally, government entities like the Defense Department, US Geological Survey and Montana Bureau of Mines and Geology are directly participating in the exploration boom.

The USGS announced regional airborne geophysics surveys for 2023 to explore both the Idaho cobalt belt as well as the REE-thorium belt, containing the Sheep Creek deposit. Various interested parties are hoping for economic synergy from multiple nearby mines and related manufacturing facilities.

(cont’d page 6)

Read the full report:
friendsoftheclearwater.org/climatereport

Our deepest thanks to the Charlotte-Martin Foundation for funding this crucial report.

THE COVE-MALLARD CAMPAIGN, 30 YEARS ON

By Natalie Shapiro

Thirty years ago (May 31, 1993, to be exact) a rag-tag group of forest defenders met in the heart of Idaho, just north of the Salmon River, on a small piece of private land (aka “The Land”) near Dixie. At stake was the decimation of two of the largest remaining roadless areas in the lower 48—the Cove and Mallard roadless areas, comprising 76,000 acres of intact wildlands nestled between the Selway Bitterroot and Gospel Hump wilderness areas. The US Forest Service (USFS) had signed off on a massive EIS in 1990, condemning these roadless gems to 200 logging units and 145 miles of roads.

Forest activists had begun exposing the devastation of the USFS “forest management” policies in the late 1980s, using environmental laws and regulations to help rein in the



An armed federal officer during the protests.

exuberant road building and logging of the 1980s and ‘90s. The first lawsuit against the Cove/Mallard timber sales was filed by the Idaho Sporting Congress in 1993; however, the judge failed to provide an injunction temporarily halting the sales as it slowly moved through the courts.

Something else was needed to slow things down until the courts issued an injunction or halted the sales altogether. That “something else” was Earth First! and people committed to using non-violent civil disobedience tactics to protect wild areas.

In 1992, the resistance began! An old school bus (aka The Ancient Bus Brigade) rolled into central Idaho, camping on USFS land near Dixie, carrying an enthusiastic group of forest defenders, ready to put their bodies on the line to stop the beginning of road construction to the first Cove/Mallard timber sale.

Activists, harassed by the USFS, steadfastly remained. They didn’t stop all the roadbuilding, but brought attention to the devastation under way.

The 1993 Memorial Day kickoff for the Cove/Mallard campaign combined educational workshops and rowdy songs for the wild. Forest activists shared why this area was biologically important, why the granite-derived soils were especially ill-suited to logging and roadbuilding, and the connection of the area to salmon. Learning how to monitor timber sales, navigating in the backcountry, and what to do if/when one was arrested were all part of the weekend’s activities. As were some wild, rowdy campfires, loud singing, and lots of drinking. “Earth First! Don’t Stop” was a rallying cry that weekend—mimicking the signs placed around the nearest towns of Dixie and Elk City to tell the forest defenders that we were unwelcome.

The overall campaign strategy was to halt roadbuilding and logging until the courts could permanently shut the sales down. Tactics included nonviolent civil disobedience, on-the-ground monitoring of violations of environmental laws and regulations, and media coverage and public outreach to build public support for protecting these special places.

All these tactics were used

that summer; activists blocked road construction by chaining themselves to USFS vehicles and gates, sitting in trees and tripods, and burying themselves in the newly-graded logging road. At the same time, monitoring discovered violations of environmental laws and regulations, which helped bolster the ongoing lawsuits and outreach efforts. Media coverage was crucial to the success of this campaign and media central was a small motel in Moscow, Idaho, dozens of miles away from the action. In spite—or perhaps because of—these challenges, the campaign received continuous media coverage from major outlets. News reporters from ABC News and the Washington Post

were among those who trekked out to the back woods of Idaho. And often they were there in time to witness violence against the activists.

Keep in mind that this was in the era before cell phones; the closest communication with the outside world was via a public pay phone in the town of Dixie



Various constructed barriers meant to halt the illegal logging of the Cove-Mallard roadless area.



(about 10 miles away from The Land along rough dirt roads). Making a phone call presented a safety risk—one of the activists was on the phone one day while a local on a horse threatened to lasso and hog tie him (a bluff, but a scary one at that).

Ultimately, the sales were cancelled by then-Nez

“Something else was needed slow things down until the courts issued an injunction or halted the sales altogether. That “something else” was Earth First!”

Perce National Forest Supervisor Bruce Bernhardt. The USFS cited reasons such as a backlog of Forest Service road maintenance, a shift in public sentiment towards big logging projects, and a desire to move away from big, expensive road building in roadless areas.

(cont’d next page)

As I write this article, the Cove and Mallard roadless areas are again threatened by logging, as are nearby areas adjacent to the Gospel Hump and elsewhere. Things are dire, but we have been here before. With a group of determined and dedicated activists, we can stop the continued ravages of our wild areas.

There is tremendous energy right now regarding climate change and social justice-especially with young people. Tying these in with how intact forests are crucial to mitigate climate change and the right of Black and

Indigenous people of color to experience wild areas can create powerful tools to unite activists on all fronts and can help assure the rights of wild areas to exist. If nothing else, please support groups like FOC that don't compromise our wild areas away. And consider putting your body on the line when it is time to do so.

The fish and wild areas depend on you.

Natalie lives in California and is the executive director of the Buena Vista Audubon Society.

BITTERROOT ECOSYSTEM GRIZZLY LAWSUIT WIN!

By Jeff Juel

On March 15, 2023 a federal court judge in Montana ordered the U.S. Fish & Wildlife Service to re-analyze the recovery of grizzly bears in the Bitterroot Ecosystem of north-central Idaho and western Montana, much of it lying within the Wild Clearwater country that Friends of the Clearwater works hard to protect. The Wild Clearwater contains

one of the largest areas of wilderness in the lower 48 states, and was once home to perhaps a few thousand grizzly bears. By the mid-1900s, however, humans had exterminated them.

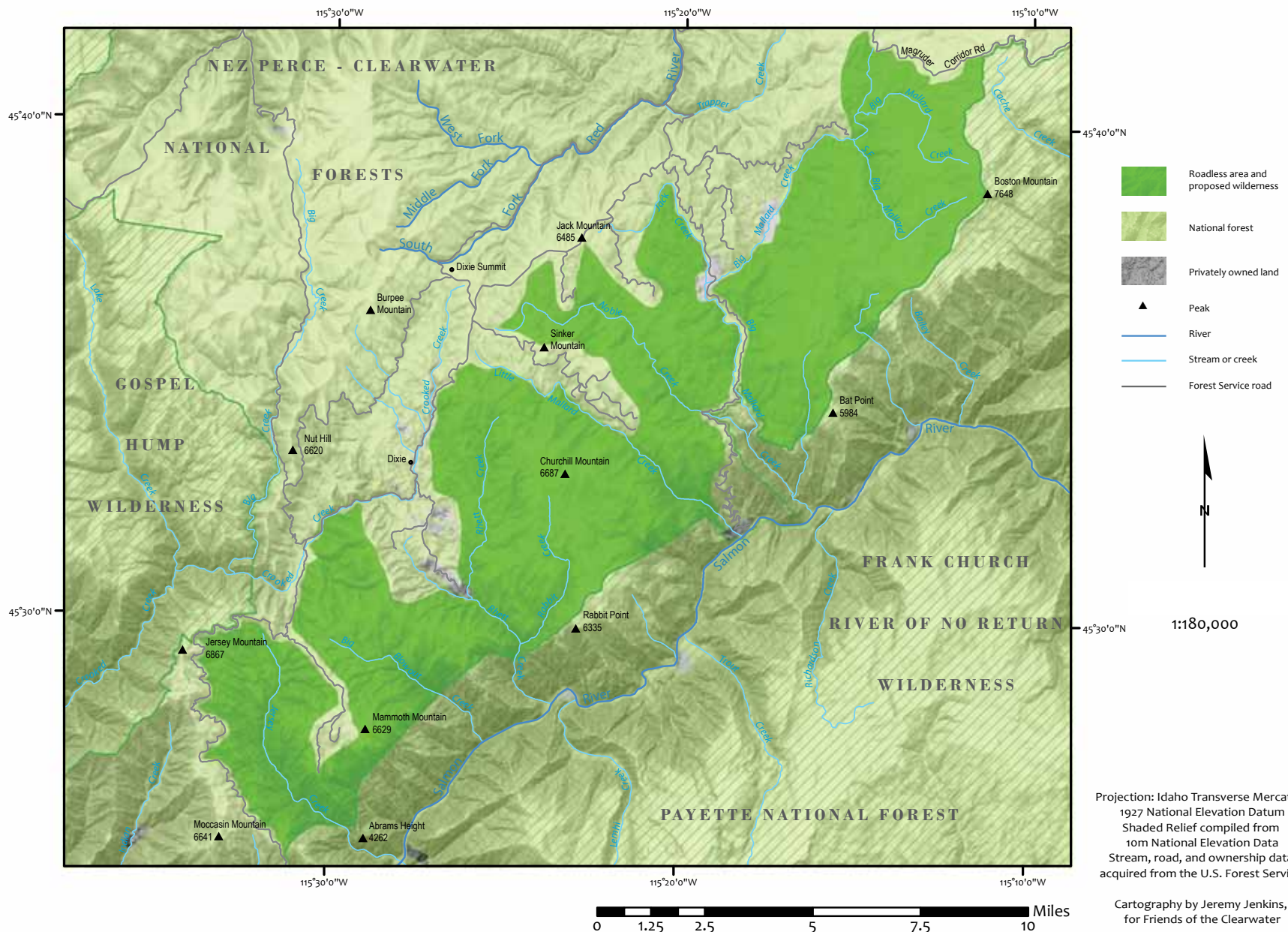
The Court agreed with plaintiffs Alliance for the Wild Rockies and Native Ecosystems Council that the U.S. Fish & Wildlife Service (USFWS) must re-analyze the recovery of grizzly bears in the Bitterroot Ecosystem

(BE), and ordered the agency to submit a timeline for doing so. The USFWS subsequently filed a timeline, which anticipates preparing an Environmental Impact Statement (EIS) and arriving at a final decision by October of 2026.

Once the EIS process begins later this year, interested parties are free to suggest alternatives. For example, citizens

(cont'd page 7)

FRANK CHURCH - RIVER OF NO RETURN WILDERNESS ADDITION - COVE/MALLARD



(Bitterroot Mine cont'd from Pg. 3)

REE's ores are generally mined by excavating open pits and then leaching the ore in adjacent heaps or vats. Sometimes they are mined using in-situ leaching by injecting leaching agents into drill holes bored into the ore. The resulting chemical soup containing REEs is then captured for further processing. Leaching agents used to saturate the mined ore commonly include ammonium sulfate and ammonium chloride, both highly soluble in water and sometimes used as fertilizers. Materials used to refine and separate REEs from resulting concentrates include a witch's brew of toxic chemicals.

Mining REE deposits requires blasting bedrock into rubble which makes removal possible and exponentially increases the surface area of rock, aiding chemical leaching.

Unfortunately, it also exposes the increased rock surface area to ground water and air, leading to mobilization as dust or water drainage of metals and other constituents of the rock, like sulfides, asbestos, or radioactivity.

The companies claim the deposit contains the highest reported total rare-earth oxide grades of any rare earth deposit in the United States. REEs are often found associated with thorium, a radioactive

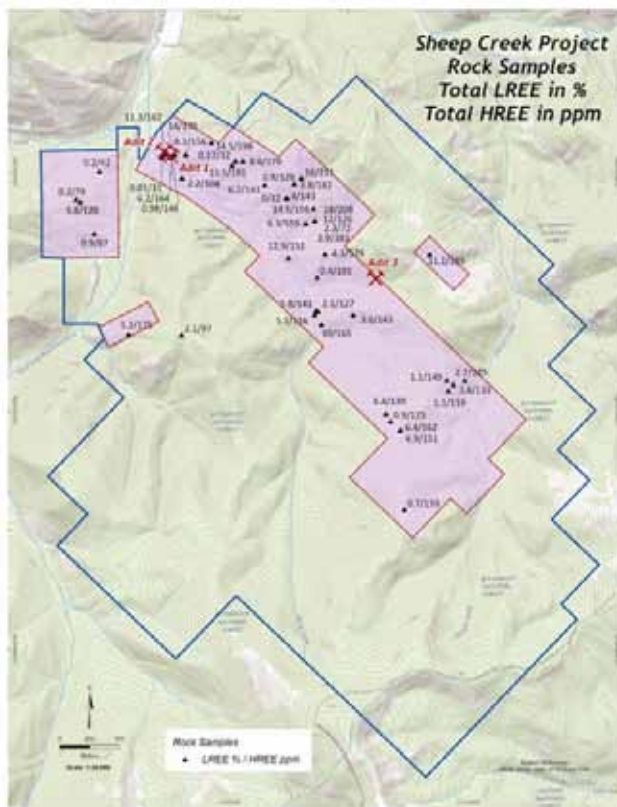
"The mine would be at the very headwaters of the Bitterroot River, so water pollution could contaminate the length of the river"

element. U.S. Critical Materials says there's not enough thorium at Sheep Creek to require permitting from the U.S. Nuclear Regulatory Commission, supposedly giving the deposit a competitive advantage in addition to the reported high-grade assays. Their promotional material also declares that "Montana is a mining friendly state".

Late fall of 2022 the companies conducted non-mechanized exploration, opening a couple old adits (tunnels) and taking hand samples. They have submitted a Notice of Intent (NOI) to do similar work in 2023. Such hand work does not require NEPA public involvement. Although not included in the recent NOI, company press releases state they want to begin exploration drilling in 2023.

Potential environmental

damage is not limited to mining, per se. Exploration activities before mining can also cause irreparable damage. Ground disturbing activities like drilling or road building would trigger the need for a BNF approved Plan of Operations, and accompanying NEPA public involvement process, as



well as application for an Exploration License with the Montana Department of Environmental Quality. This would provide official public comment periods and opportunities to reality check just how "mining friendly" the

Bitterroot actually is given the specific circumstances of the Sheep Creek situation.

"Green energy" sounds benign, but the development of needed materials can be quite environmentally damaging. In the case of a REE mine at Sheep Creek, location context is a critical element in the analysis. The mine would be at the very headwaters of the Bitterroot River, so water pollution could contaminate the length of the river clear to Missoula and beyond (like Butte on the Clark Fork). There would be heavy metals, acid drainage, arsenic, radioactive thorium and possibly asbestos released from the bedrock. (The mineral actinolite is present in significant quantities. Actinolite can occur as asbestos.)

Water contamination by ammonium leaching agents could

contribute to nutrient (Nitrogen and Phosphorous) pollution of the Bitterroot River, which supports threatened bull trout, westslope cutthroat trout as well as a very lucrative fishing industry. Nutrient pollution can lead to excessive algae growth and eutrophication.

Painted Rocks reservoir, a few miles below the mine site, provides reserved instream flow to the West Fork during late-season low flows. This supports irrigation and helps make the West Fork fishery a stronghold for survival by adding cold water from the reservoir to the late season warmed river water. Pollution of Painted Rocks would be a big risk to existing locally owned, proven-sustainable, fishing industry as well as irrigated agriculture.

The Sheep Creek REE claim block spans a wildlife linkage corridor along the MT/ID divide connecting the Continental Divide corridor with the River Of No Return and Selway Bitterroot Wilderness right at a bottleneck in the Allan Mountain Inventoried Roadless area. The corridor is essentially Broadway for grizzly bears heading into the US Fish and Wildlife Service designated Bitterroot Grizzly Bear Recovery Area. Many other iconic species reside in or move through the Allan Mountain IRA, including wolverine, rocky mountain sheep, mountain goats, and Northern Rockies fisher.

The USFWS grizzly bear recovery plan depends on grizzly bears wandering into the Bitterroot Recovery Area. The connectivity corridor at stake is the only existing wildland corridor through the highly populated Bitterroot Valley.

Road building for drill rig access to the over 40 dikes



Painted Rocks reservoir. Joe Butsick/Bitterroot Nat'l Forest photo.

containing REEs scattered across the claims would severely damage the connectivity corridor. At this crucial time for grizzly bear recovery wildlife displacement would begin immediately at a very strategic and vulnerable location and last for decades, even from "reclaimed" roads, and,. Thus, even if the Sheep Creek mine does not pan out the way the corporate owners seem to want, there could be long-lasting damage to rare public values simply from exploration activities.

Exploration drilling could also contaminate ground water at the Bitterroot headwaters. Citizens should insist the BNF require the Company to characterize both the area ground water as well as Sheep Creek surface flow through monitoring prior to any drilling to develop a base line before any water contamination can occur from exploration road sediment, drilling materials, solvents, or fuel storage.

We expect the Company will soon submit an exploration Plan of Operation (PoO) to the BNF and MTDEQ. The permitting process could be quite abbreviated, so concerned citizens need to be prepared to act quickly.

Take Action!

To be notified in a timely manner contact West Fork Ranger and ask to be included on the list of interested citizens: Daniel.pliley@usda.gov

Public comments are appropriate at any time, through letters to editors or on social media.

Public comments to appropriate agencies can be submitted at any time.

Opportunities include periodic official comment periods.

For more information see: <https://www.friendsofthebitterroot.net/sheep-creek-mining/>

OLD-GROWTH “INVENTORY” RELEASED

By Jeff Juel

In April, the U.S. Department of Agriculture, Forest Service and U.S. Department of the Interior, Bureau of Land Management released “Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service

not spatially specific and no map of your local old growth can result. The word “estimate” is the better description. It’s like asking the mechanic which components of your car’s engine have gone wrong and need replacing, and getting a mere estimate of how much it would cost for the repairs.

The issue is with the methodology

widely distributed geographically and across land use allocations” because it says nothing about specific location, spatial extent and connectivity across the landscape.

Instead, we must push the Biden administration to meet the goal, as stated in E.O. 14072 to “develop... policies to institutionalize climate-smart management and conservation strategies that address threats to mature and old-growth forests on Federal land.” In teasing out the bureaucratise of that statement, I see two parts: 1) institutionalize climate smart management of federal public lands; and 2) address threats to mature and old-growth forests on federal public lands. Since the science is clear that fully-functioning, natural forest ecosystems are most resilient to climate change and most efficiently sequester carbon and thus keep it out of the atmosphere, it simply means we must redouble our effort to protect and restore the public lands we’ve always valued so much.

Please visit our website to submit your comments by July 20 .



FOC founder Steve Paulson in old-growth cedars of the Aquarius Natural Research Area. Paul Busch photo.

(Bear Win cont’d from Pg. 5) bears from other ecosystems to establish an experimental, nonessential population of grizzly bears under the 10(j) rule in the Endangered Species Act (ESA). Under 10(j), bears in the BE would not enjoy full

“[An experimental] population cannot be dropped where a natural population already exists”

protections as a Threatened species under the ESA, which sparked opposition from pro-bear citizens and groups such as FOC. But as discussed in the Autumn 2021 and Autumn

2022 Defender, the USFWS never implemented any recovery alternative or initiated meaningful, proactive measures, which spurred this lawsuit.

A key finding by the judge is that the 10(j) option is no longer valid because in recent years, a few grizzly bears have found their way naturally into the BE. A 10(j) population cannot be dropped where a natural population already exists. FOC intends to work with plaintiffs and other pro-bear folks to promote an updated version of the CBA, which we anticipate will require meaningful restrictions of land management actions such as logging, road building, livestock grazing, mining, and motorized vehicle access on national forest lands.

SPEAK FOR THE TREES!

Comment by July 20th in support of old-growth protections at friendsoftheclearwater.org/MOG

and Bureau of Land Management.” This was in response to President Biden’s 2022 Executive Order (E.O.) 14072, “Strengthening the Nation’s Forests, Communities, and Local Economies” which called on those agencies to, in one year, “define, identify, and complete an inventory of old-growth and mature forests on Federal lands... .” This was the subject of an article in the Summer 2022 Defender in which we expressed skepticism over the integrity of the federal inventory process.

Our skepticism was justified. Although the report presents “initial estimates” of old-growth and mature forests, its description as an “inventory” is overblown. Whereas one might expect the “inventory” to tell where mature and old-growth forests might be found on a national forest near you, the “inventory” is

used to make the estimate. The federal government funds the Forest Inventory and Analysis (FIA) program, which has a lot of national utility for tracking the status and trends of forests across the nation on land of all ownerships. However those uses don’t include producing maps or monitoring ecological integrity. Ecologically speaking, an old tree, a conglomeration of a few old trees, or even an acre with several old trees (the latter being how the FIA samples) does not define “old growth.” For an old-growth forest to fill its ecological role, location, spatial extent and connectivity across the landscape matter highly.

So we won’t be distracted the statement, “This report ...demonstrates that both old-growth and mature forests are generally

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friendsoftheclearwater.org**

Forest Carbon 101

By Paul Busch

Trees, if you were to describe them to an alien, would sound like the ultimate technology. A self replicating organic structure that absorbs carbon and releases oxygen at a planetary scale? How is it even possible?

Lucky for us, it's possible, simple, and inexpensive to manage forests for carbon storage. The idea of a "forest carbon reserve" isn't new, but the accelerating costs of climate disorder have brought forest management into mainstream attention.

Unfortunately, corporations have led an enormous effort to greenwash logging as a carbon neutral practice.

Knowing how forests absorb carbon is the first step to defang climate grifters and stop runaway global warming.

How does a tree absorb carbon?

During photosynthesis, a tree's leaves or needles absorb carbon dioxide from the air to convert into sugars and oxygen.

Sequestered carbon accounts for around 50% of a tree's volume¹. The bigger a tree gets, the more carbon it stores, much of it in the trunk.

You can actually see this by looking at the rings on a stump. Every year of growth is bigger than the year before it. As the tree increases in surface area, the volume of carbon needed to cover the previous year goes up and up.

Because of this, old, large-diameter trees store stupefying amounts of Co2. One study² done on the Blue Mountains of Oregon found that the largest 3% of trees contained nearly 45% of the above ground biomass. Even more astonishing, large-diameter trees absorb more carbon in one year than the total amount of carbon stored in a tree of half

their size.

Which forests store the most carbon?

An abundance of water and nitrogen, as well as a lack of disturbances (fires, windstorms, landslides, or clearcuts) make for carbon-dense forests. Some are hot, like the Amazon, and some are cold, like the taiga, but they are almost all well hydrated.

The same is true for the Clearwater, where the very largest diameter trees tend to be western redcedars in riparian areas, like in the Aquarius Research Natural Area. Constant water and shelter from wildfires (what is called fire refugia) mean some trees grow for a millennia or more.

The rainforests of southeast Alaska take this to the extreme. Constant rain and a nearly year-long growing season create an environment perfect for giant trees. When trees finally die, cool temperatures slow down the decaying process, so thousands of tons of carbon get trapped in the soil.



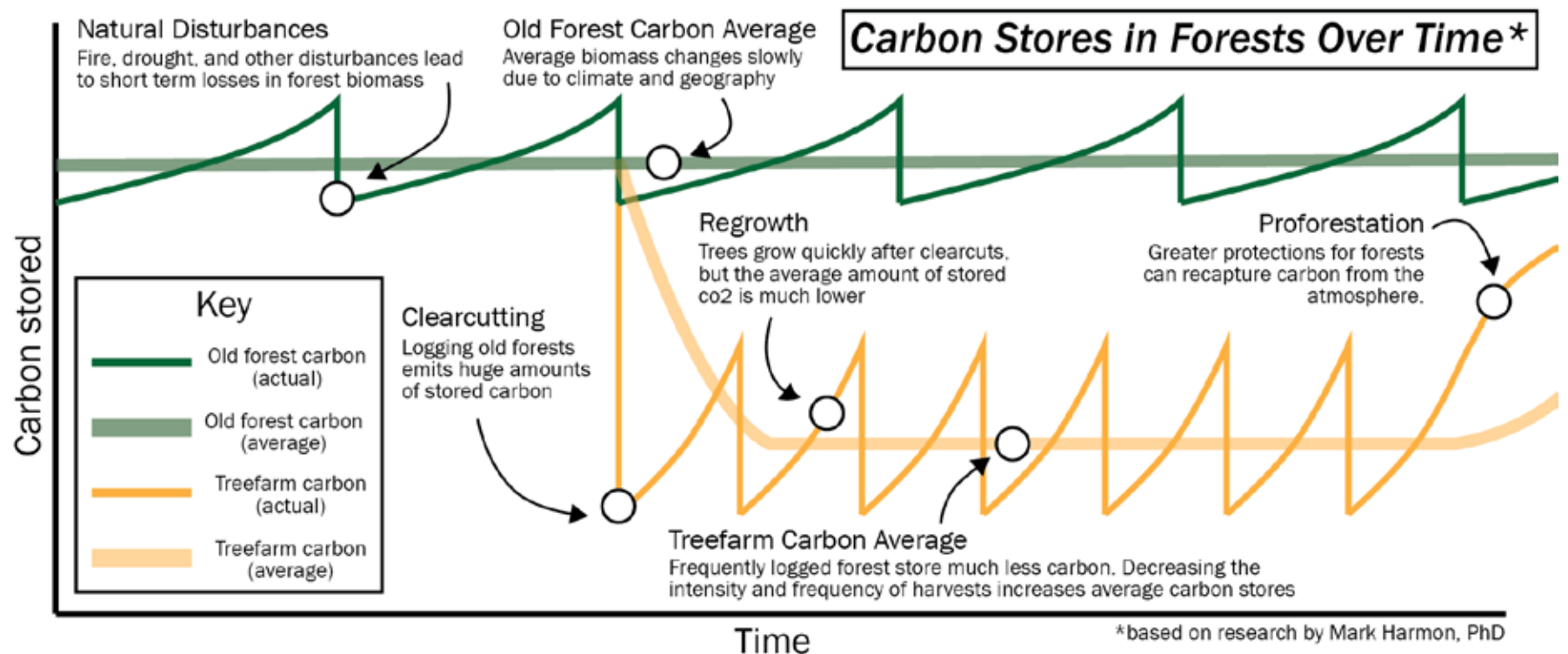
Lupine in a lodgepole pine snag forest. Most of the carbon of this forest, in the Meadow Creek Roadless Area, remains on the ground. Ron Marquart Photo.

This slow decay is the same reason that peat bogs, wetlands, and undisturbed prairies store so much carbon - roots underground or underwater take a very long time to make it to the atmosphere. Roots, soils, litter, and deadwood account for around 60-70% of the biomass of the forest³, often well above living

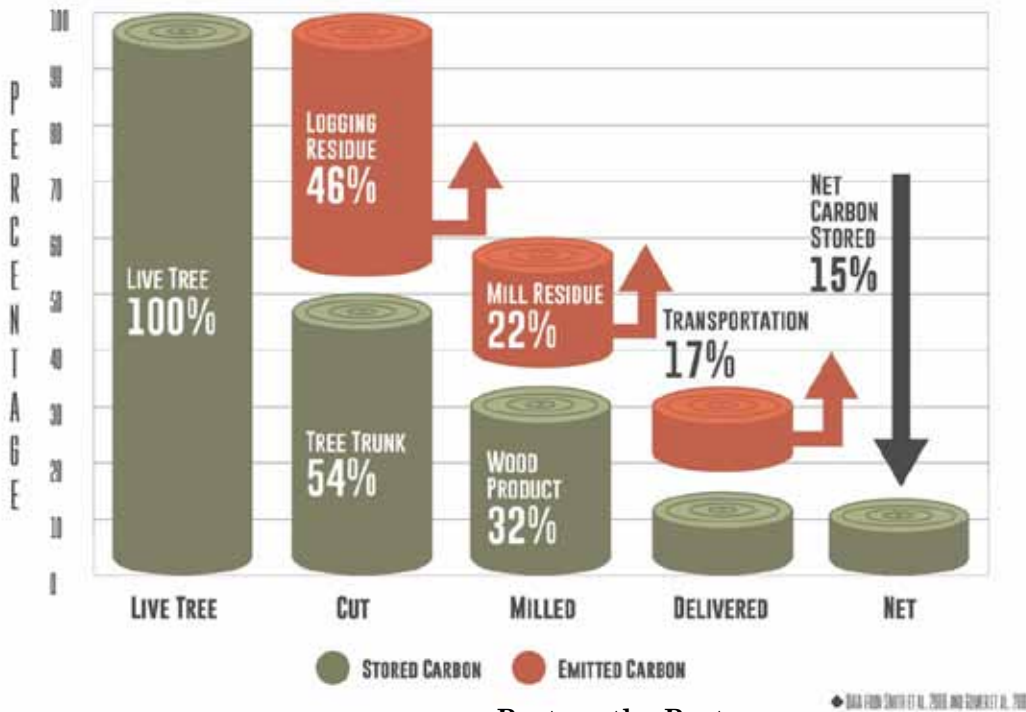
trees.

How do fires impact carbon stores?

Fires, even high-intensity landscape-scale fires, emit a small percentage of a forest's carbon. One four-year study of a large Californian wildfire⁴ estimated a



FATE OF CARBON FROM HARVESTED WOOD



measly 2% of biomass was lost. This is because needles and branches (which burn easily) make up a very small proportion of the biomass of an adult tree. Black “snag forests” of relatively intact boles decay slowly on the landscape for decades or centuries, effectively delaying emissions as new trees grow up.

How does logging impact forest carbon?

Logging is the largest source of carbon emissions on national forests.

Unlike forest fires or windstorms, which leave dead trees, logging takes the whole tree, processing some and burning the rest. You can learn more by reading the graph above.

How could we manage forests for carbon?

Borrowing a great phrase from the Clark Fork Coalition, we need to “Protect the Best and Restore the Rest.”

Protect the Best

Today’s forests already store millions of tons of carbon. Keeping that carbon “on the ground” is absolutely key. Old-growth forests should be set aside from logging immediately.

Restore the Rest

Keeping carbon on Earth’s surface is a good start. Getting carbon out of the atmosphere is even better.

This is the main difference between “reforestation” and “proforestation”. Clearcutting and replanting keeps carbon stocks very low. Letting forests rewild can increase carbon stocks longterm.

A clearcut forest emits carbon for 10-15 years⁵ before it begins to act as a carbon sink again. Giving these degraded areas a century or more to absorb recover would begin to shift the needle on atmospheric Co2.

Going Further

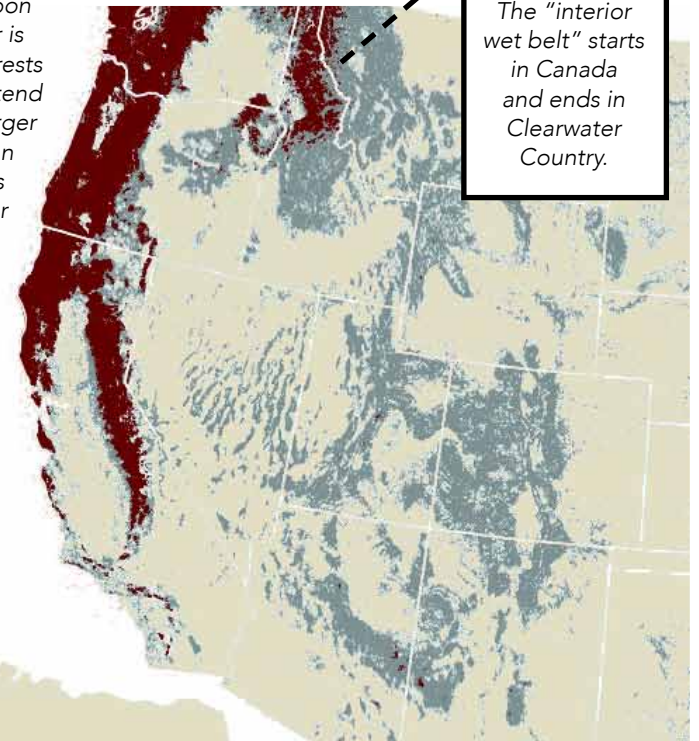
The dangers posed by global warming - summer heatwaves above 120 degrees, energy grid failures, flash droughts, prolonged fire seasons - pose incredible challenges for developed nations and threaten outright collapse for societies in the global south.

Conserving existing forests is the first step. But some of the best potential for carbon capture is actually on private industrial-style timberlands, like the emaciated Potlatch lands west of the Clearwater National Forest. Intensive plantation-style timberlands have already emitted enormous amounts of carbon into the atmosphere. Switching to

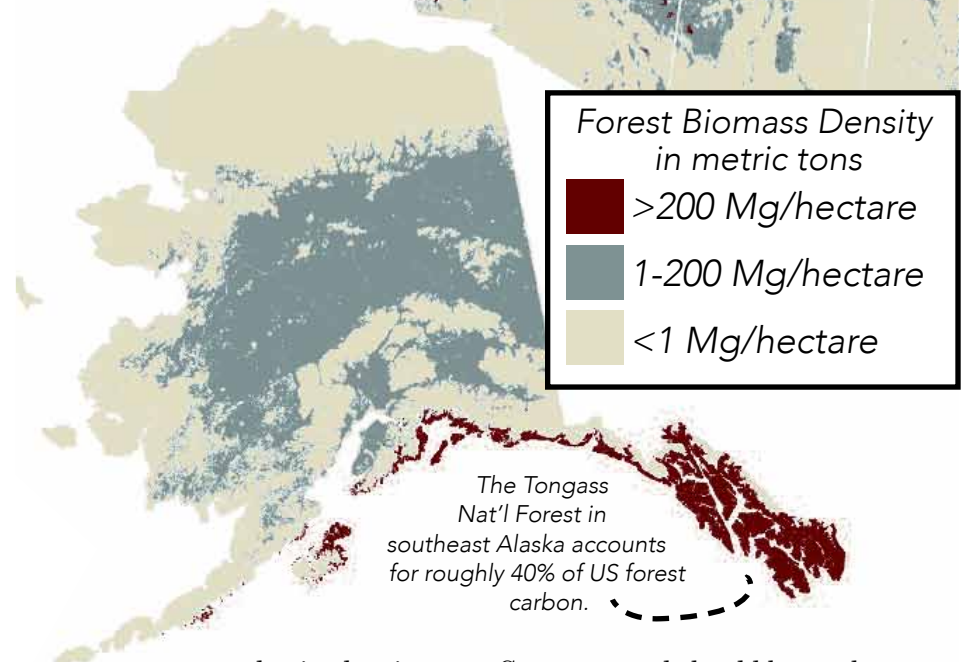
High Biomass Forests in the Western Continental USA and Alaska*

As far as carbon goes, wetter is better. The forests of the Pacific tend to support larger trees and can go centuries without major disturbances like fire.

*This map is an edited graphic of Krankina et al, 2014.



The maritime influence of the Pacific extends inland in the Northwest. The “interior wet belt” starts in Canada and ends in Clearwater Country.



The Tongass Nat’l Forest in southeast Alaska accounts for roughly 40% of US forest carbon.

selective logging or increasing intervals between harvests would recapture some Co2 currently in the atmosphere.

Regulating (or incentivizing) the private timber industry is well within the powers of

Congress, and should be on the table as a way to help mitigate the greatest ecological crisis of human history.

Works Cited:

1. Thomas and Martin, 2012 “Carbon content of tree tissues: a synthesis”
2. Mildrexler et al, 2020 “Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest”
3. Birdsey and Heath, 1995 “Carbon Changes in US Forests”
4. Harmon et al, 2022 “Combustion of Aboveground Wood from Live Trees in Megafires, CA, USA”
5. Turner et al, 2004 “Monitoring forest carbon sequestration with remote sensing and carbon cycle modeling”

NATIONAL FOREST UPDATES!

By Jeff Juel

Here are brief summaries on the status of some U.S. Forest Service management actions we've been watching. Except where noted, all are on the Nez Perce-Clearwater National Forest.

Forest Plan Revision

The Forest Service (FS) is entering the latter stages of revising the land and resource management plans (Forest Plans) for both the Nez Perce and Clearwater National Forests. The agency has been operating under the original Forest Plans since 1987, but because they were administratively combined in recent years there will be one plan for the Nez Perce-Clearwater National Forests. Based on the FS's recent projections the next phase (the issuance of the revised Forest Plan, its Final EIS, and draft Record of Decision starting a 90-day administrative Objection period) will begin sometime around early July. FOC members and others on our alert list will hear from us as soon as this happens.

Hungry Ridge and End Of The World (HR/EOTW)

These two huge timber sale projects on the Salmon River Ranger District were stopped by a federal court in 2022. The court faulted the way the FS complied with Forest Plan Standards for designating minimum percentages of old growth, and determined that analysis for EOTW with a less detailed Environmental Assessment did not satisfy the National Environmental Policy Act. The FS filed a notice on appeal to the Ninth Circuit, but also recently completed a Draft Supplemental EIS comment period for Hungry Ridge in an attempt to satisfy the court. The FS has not filed any appeal pleadings after their original notice, and there's a chance they will soon drop the appeal in favor of completing new analyses, or else push forward with appeal of one or both projects.

Clear Creek Integrated Restoration – Moose Creek Ranger District

In late 2015, the FS issued a Record of Decision that was subsequently withdrawn after the Nez Perce Tribe challenged it. A new decision was signed on 2/17/2023, with the project being reduced in size. It still features 1,540 acres of “regeneration harvest”

(clearcuts), 242 acres of “improvement harvest”, 4,045 acres of “commercial thinning”, 57 acres of “intermediate harvest” and about 16 miles of new road construction.

Green Horse – Moose Creek Ranger District.

Decision Notice signed 3/3/2023. The FS intends 1,355 acres of clearcutting, 180 acres of “salvage (intermediate) harvest” along Forest Roads located on borders of the O'Hara-Falls Creek and



(Above) Mature or old-growth forest in the Hungry Ridge area. Katie Bilodeau photo. (Below) A three-toed woodpecker, one of many species that use older forests rife with insects, like the Twentymile project area. Ron Marquart photo.

West Meadow Creek roadless areas, 45 miles of road reconstruction and road reconditioning and 2.1 miles of new road construction.

Limber Elk - Red River Ranger District

In February 2021 we commented on the proposal for 2,993 acres of “regeneration and intermediate harvest”, up to 21 miles of new road construction plus other road reconstruction and improvements. Decision pending.

Red Siegel - Red River Ranger District

In February 2022 we commented on the proposal for 2,726 acres of clearcuts, 483 acres of “commercial thin”, 110 acres of “sanitation” logging, 630 acres of “fuel breaks” and 142 miles of road maintenance, reconstruction and improvement. Decision signed June 2023.

Twentymile - Red River Ranger District

In May of 2023 we commented on

a Proposed Action featuring 1,822 acres of clearcutting, 387 acres of “intermediate harvest”, 6,807 acres of “landscape prescribed burning”, 10 miles of new road construction and 36 miles of road reconstruction or maintenance. Since the FS is requesting use of new authorities for implementing such actions under a claimed “Emergency” due to elevated fire risk, there may be no further opportunity for public input prior to a Decision—even though there is no private land anywhere near the project area.



Longleaf - Palouse Ranger District

In February 2023 we commented on a Proposed Action featuring 605 acres of clearcuts, 207 acres of “commercial thin”, 1,488 acres of prescribed burning, and 27 miles of road construction. The FS will be preparing

an Environmental Assessment but it's not clear if there will be a further comment opportunity or if a draft Decision will accompany that EA, initiating the Objection process.

Dead Laundry – North Fork Ranger District

Following administrative Objections filed by FOC and other groups in February 2022, the FS withdrew its original draft Decision Notice in order to conduct further analysis. This year the FS reinitiated the Objection process and in May FOC filed a new Objection. The new draft Decision Notice reflects some reduction in the size of the logging project. They changed the commercial logging portion of their 56-acre “old-growth enhancement” from the previous proposal to “only hand/mechanical non-commercial fuels activities.” Still, the proposal would clearcut 2,057 acres, construct 42 miles of road, and do more road reconstruction and maintenance. The FS has not contacted us to discuss resolution of our Objection, an optional procedure, so we await the agency's final disposition prior to its Decision.

Lacy Lemoosh – St. Joe Ranger District, Idaho Panhandle National Forests

In May 2023 we commented on a Proposed Action featuring 4,400 acres of clearcuts, 38 miles of road construction, 24 miles of road reconstruction and 17 miles of road maintenance. The FS hasn't indicated if it will be preparing an Environmental Assessment or a more thorough Environmental Impact Statement, so it's not clear if there will be any further opportunities for public comment prior to the Objection process.

For each of the ten timber sale projects discussed above, the FS is exploiting huge loopholes in the National Forest Management Act, which normally limits clearcut sizes to 40 acres in extent. In other words, the Regional Forester has or will rubber-stamp requests for huge, supersized clearcuts up to several hundred acres in size, for each of those timber projects.

Kirks East Elk - Red River Ranger District

In May of 2023 we commented on the proposal to reinstitute and authorize cattle grazing on three allotments that have been vacant for at least 20 years. This is in response to a determination by the FS that current livestock grazing on a fourth allotment conflicts

with traditional cultural values of the Nez Perce Tribe. The FS wants to maintain the viability of the livestock operation of the permittee who has been using that allotment. The proposals states, “ESA-listed Snake River steelhead trout and Columbia River bull trout (threatened) occur in several project area streams” and livestock would graze next to and enter those streams. Also, the allotments would encompass portions of

the Meadow Creek and Lick Point Inventoried roadless areas.

The FS proposes to release an Environmental Assessment and draft Decision to initiate the Objection process likely sometime later this year rather than accept and respond to further public comments.

GOODBYE...FOR A LITTLE BIT

By Katie Bilodeau

My Dear Clearwater Friends,

With a heavy heart I wanted to let FOC’s members know that March 31, 2023, was my last day as Friends of the Clearwater’s staff attorney. My husband has been offered a wonderful two-year career opportunity out in Washington, D.C., and I still like living with my husband, so I am accompanying him to our nation’s capital. I took a remote job with the Partnership for Policy Integrity, which fights for intact forests globally. Working for FOC has many wonderful perks, but transcontinental remote-work capability is not one of them.

This grassroots organization thrives because staff and volunteers in North-central Idaho and Western Montana have immediate and relatively easy access to the Clearwater to monitor the on-the-ground conditions.

I am honored to have worked for FOC. Attorneys need not share their clients’ values to execute diligent and effective representation—this alignment is somewhat rare in the legal field. Given that, I never took for granted that every day at FOC I repre-

sented an organization with a value system in which I fully believed. The staff with whom I’ve worked are equally passionate about the place and have been wonderful colleagues and friends. FOC membership likewise distinguishes this organization. As it was decades ago, advocating for nature is not for the faint of heart. When the toll of wild advocacy weighed on me, interacting with members

upon two pine martens in the Clearwater National Forest, one of whom stuck around long enough for a photo shoot. There was the time on a monitoring trip in the Nez Perce National Forest where my husband and I crossed paths with a fox carrying its next rabbit meal in its mouth. Last year we saw a young bear, loitering around the creek shore waiting for expired salmon to start washing up so he could add some weight before

“I never took for granted that every day at FOC I represented an organization with a value system in which I fully believed”

through their phone calls, their drop-in visits, or at potlucks provided some of the most refreshing and reenergizing moments.

I will bring so many memories with me to D.C. of the fantastically wild Clearwater. For the past two Septembers, my husband wandered on shore while I donned a wetsuit and submerged into frigid temperatures to photograph Kokanee salmon swimming up Weitas Creek. (Yes, Kokanee are not native, but it was still cool.) I have leaned over a backpacking stove to cook noodles in a downpour on the rocks of Kelly Creek. My husband and I once happened

winter. My husband has willingly accompanied me on most these adventures, so we share these wild moments—the best of what Idaho has to offer.

I’ll be around until September and hope I run into some of you. I’ve volunteered to take FOC’s new Wild Clearwater Intern out monitoring this summer. Her internship begins this fall, so look for her introduction in the next newsletter. Thank you for an unbelievable five years and the chance to be a voice for Wild Clearwater Country.

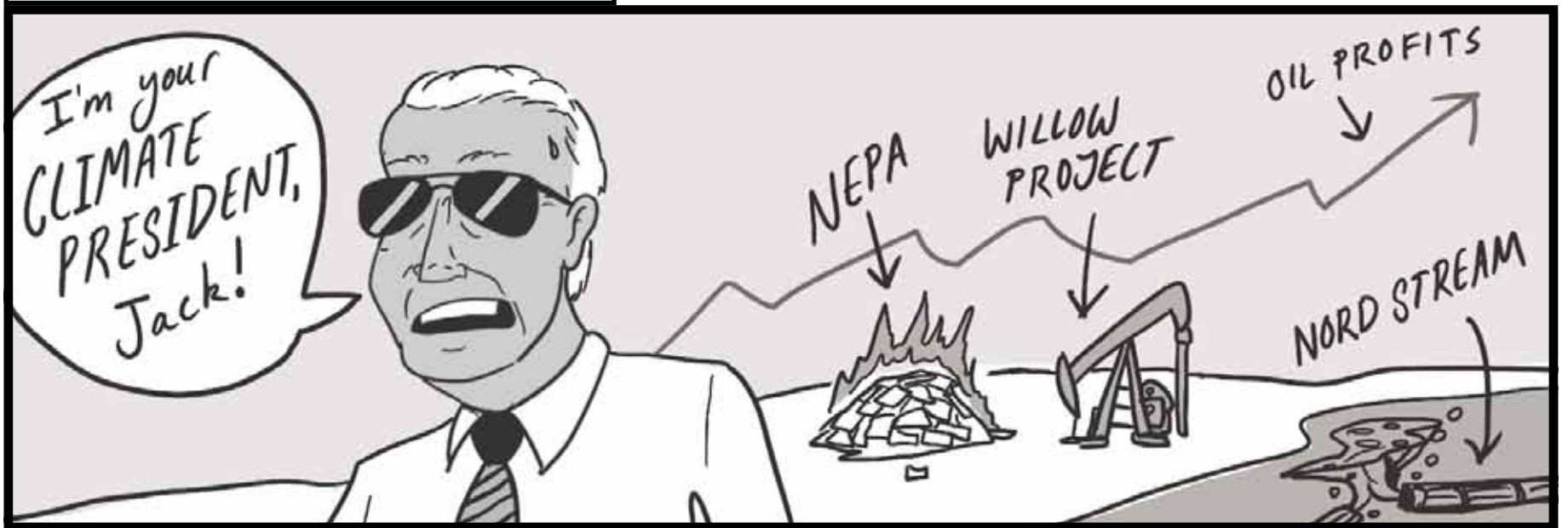
Keep it wild,

Katie Bilodeau

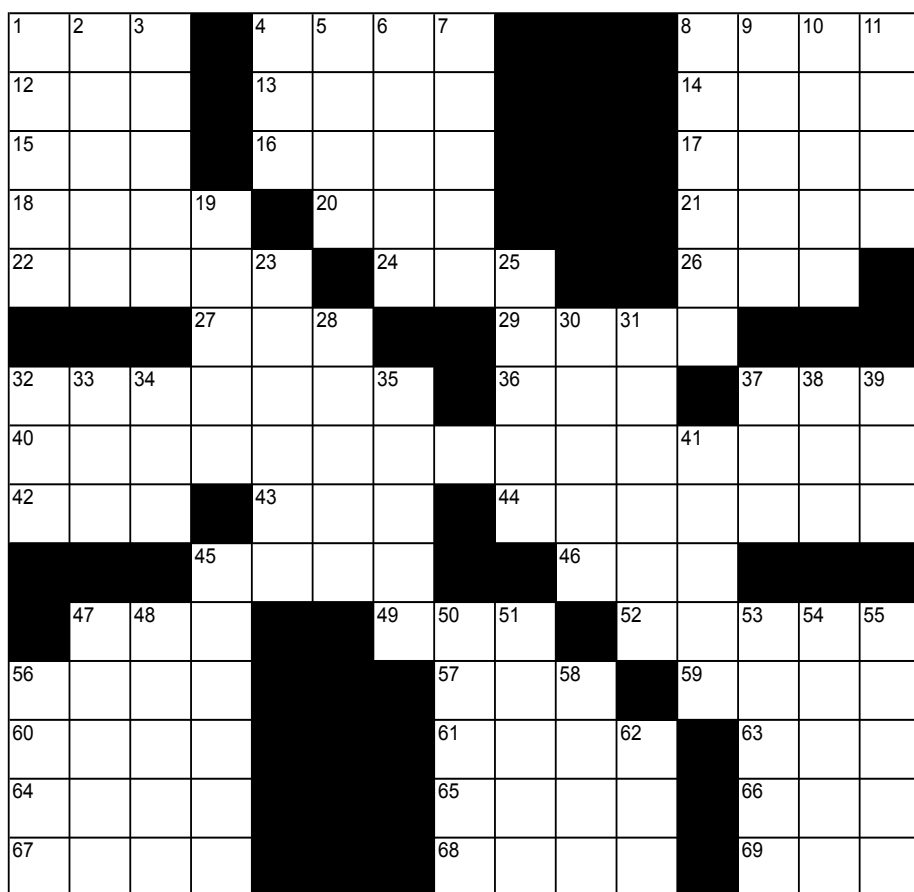


Katie getting sappy with a remarkably big lodgepole pine in the Hungry Ridge area. Paul Busch photo.

Coyote’s Comics: Climate Joe



Conservation Crossword By Paul Busch



ACROSS

- 1 Wildlife law passed in 1970
- 4 Left and right are common kinds
- 8 A creek that runs dry
- 12 Fox News Reactionary Coulter
- 13 A kind of garnet
- 14 The largest dolphin, imperiled in the Puget Sound
- 15 Kurasowa's take on MacBeth
- 16 A very famous skunk
- 17 "____, the professional" film with Natalie Portman
- 18 Corroborated by facts
- 20 Small drink
- 20 How hippies get to the forest
- 22 Deepest canyon in America
- 24 A major obstacle to salmon migration
- 26 Compass direction
- 27 No longer
- 29 Chooses
- 32 Source of profits
- 36 When you might sing 'Auld lang syne'
- 37 Big head
- 40 Kooskooskia, to the Nimiipuu
- 42 "Hello" to a crow
- 43 Fish without fins
- 44 Might see in an alley?
- 45 Chances
- 46 Dirt
- 47 K-pop superstar band
- 49 Microwave tone
- 52 Idaho's junior Senator
- 56 What your grandad calls trial mix
- 57 Grass ornament
- 59 Side away from the wind
- 60 Prefix to green and lasting
- 61 Some drinks
- 63 Bob Wills' Miss Red
- 64 Idaho's Federal Court Circuit
- 65 Mr. Strauss' first name
- 66 As a hatter
- 67 Where a kayaker gets stuck, say
- 68 Truck canopy brand
- 69 Places the ambulance takes you

DOWN

- 1 What comes first, to enviros
- 2 Tool to kill furbearers
- 3 More than divorce, to Catholics
- 4 Small amount in baking
- 5 Native people of the Colorado Plateau
- 6 Wild and Scenic river below the Seven Devils
- 7 Visionary bill to protect roadless areas in the Rockies
- 8 Idaho law permits killing 90% of these
- 9 The 'A' in IRAs (not-quite-wilderness)
- 10 Good with jam
- 11 Zimmer or Christian Anderson
- 19 WA state river un-dammed in 2014
- 23 Deserving reverence
- 25 Famous Claude into lily pads
- 28 Raised plants
- 30 Kids with matches
- 31 Bush started a war on this
- 32 New Deal org. that built trails and roads
- 33 Words before 'carte'
- 34 A way to make clothes
- 35 Common surname among people form Wales
- 37 Juan Peron's wife
- 38 Alternative to HS diploma
- 39 Spanish for 'gold'
- 41 Nation south of Nepal
- 45 Fish hawk
- 47 A bison is one
- 48 More than a fad
- 50 Big family in conservation politics
- 51 Hand-to-hand combat
- 53 Sticky stuff
- 54 Conifer adapted to wetter climes
- 55 Things that will roll?
- 56 Part of a chromosome
- 58 "The moment ____ all been waiting for"
- 62 Elton John's title

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Help Spread the Word!

FOC is a grassroots organization. If you are reading this, chances are you are one of our intelligent and good-looking members. We want to reach new members, people like you who care about our public lands and want to do something to protect them. Here are a few ways you can help us spread the word on wildlands:

1. Host an FOC house party.

Call our office (208-882-9755) and invite staff over to meet your wonderful (but sadly uninitiated) friends. One of our staff would love to meet your circle, talk about the issues, bring petitions to sign, and tell them how beautiful your house is.

2. Give a gift membership

Donate \$35 in the name of someone you know who cares about Clearwater Country. We'll send you a receipt and send them our newsletter for the next year. Think of it as a gift card towards being an active citizen. Go online to www.friendsoftheclearwater.org to find out more.

3. Write your opinions!

Newspapers and social media sites are full of distortions, distractions, and disinformation. Write letters to the editor, op-eds, and share our work on social media. Presenting the facts to people only exposed to official government press releases makes a big impact.