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Submitted via Public Participation Portal for

Mendenhall Glacier Visitor Center Facility Improvements Project DEIS dated February 2022

We first talked when you came to the Tongass as Forest Supervisor and responded to my appeal of the effort to slip commercial motorized boat tours on the Mendenhall without any public review or awareness. In our negotiations, you agreed that motorized boat tours would not be permitted without a full public process. This is that process, and more. I trust you will read the community and see that we are adamantly against motorized boat tours on Mendenhall Lake and put that issue to rest forever.

What I present in this document is is not prioritized. It is an ever-growing document as I find time to sit down and share more comments. My intention is to touch on every single element that I care about to ensure that I have standing to appeal. I expect we'll be talking again. Please, prove me wrong and dramatically rework this project rather than forcing community members to put this through undoubtedly lengthy appeals and then redoing the project.

I've numbered simply to make it easier, perhaps, for those tasked to analyze comments to parse them out, and for more reference is an appeal is necessary. And, to some extent you are getting a dump as I have not been able to stop everything else in my life to study and respond with the care that I would if I were a full time employee paid to cover this. That may make your responses more time consuming as you search through the document for page numbers that relate to the topics I raise. That is a cost to you of not allowing adequate comment time.

1) I previously objected to the 45 day period granted for the original **comment deadline**. This is the minimum required by law and does not reflect FS intention to truly allow the community an opportunity to study, understand, and comment on this big proposal with big consequences. While I appreciate that the FS chose to extend the deadline to May 9, this still does not reflect a desire to work with and meaningfully engage with the community.

2) In the February 25, 2022 cover letter in the DEIS document, regarding the March 31 public webinar, you state that the online "**webinar will be recorded** and posted to the project website for future viewing." Yet, the webinar was not recorded. And when I messaged early in the webinar asking if it was being recorded (because recorded meetings indicate they are being recorded and no sign of this) I was told "no." Others asked and were also told no. Because this was not recorded and not made available for future viewing, several of us asked for a repeat webinar along with the comment extension because of the lack of recording this meeting as stated. That was denied.

3) At the public seminar, I and at least one other, asked about the status of the Mendenhall Lake

with regards to **navigable waterways and state jurisdiction**. Though we don't have a recording, it certainly seems that we were not told the full truth when James King responded that there was no determination on whether the lake waters were navigable.

*A navigable water body under state law includes any water of the state that is navigable in fact for any useful purpose including boating, hunting, fishing, and other recreational activities (AS 38.05. 965(13)).*

This at the same time you actively permit, and have for decades, commercial boat tours on the lake, and are proposing to allow 49-passenger boats on the lake. Governor Dunleavy's April 25, 2022 letter to you<sup>1</sup> states they had reached out on jurisdiction a year prior and received no response.

On Page 1-15, 1.7.2.6 the FS met with USGC to determine navigability of Mendenhall Lake and River. "U.S. Coast Guard suggested that project design should assume navigability for the Mendenhall River,..." You do not mention anything on the navigability of the LAKE from that consultation.

You also either failed to consult with the Alaska Department of Natural Resources regarding navigability and jurisdiction, or failed to report that consultation. Either way, these issues need to be resolved.

Note that I am not a fan of the state have jurisdiction over Mendenhall Lake. I do expect honesty and transparency from the Forest Service to a direct question. With no legal resolution on the jurisdictional issue of Mendenhall Lake, any elements that involve management, permitting, or infrastructure associated with accessing the lake by boat are premature for consideration in this DEIS.

#### 4) This plan — **Facility Improvements or Management Changes**

I have participated in this lengthy process since the days when a DEIS wasn't envisioned (or at least I recall we were told it wasn't).

We were brainstorming and whenever I suggested a brainstorming idea that was not directly related to commercial tourism, the facilitators would tell me that my suggestion was outside of the scope of the project. I suggested some management changes, such as creating a hiker/biker area at the Mendenhall Campground to better serve people who are arriving under their own steam. These are common at Forest Service campgrounds in the western contiguous states. Nope. Not in the scope of the plan. No interest from facilitators. I suggested allowing a mobile winter kiosk service at the Skater's Cabin area that could rent equipment (ice skates, helmets, cross country gear, and possible the same or another that offered hot chocolate and other treats that help to make a child's outdoor adventure better). Nope, not in the scope of the project. I suggested building some covered tenting areas such as I've encountered while camping in other countries, making camping in a rainforest much more comfortable and pleasant. Nope, not in the scope of the project. Now that we see the project and proposed actions, we see that the scope of

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<sup>1</sup> <https://gov.alaska.gov/wp-content/uploads/sites/2/Notice-of-Cease-and-Desist.pdf>

project was much broader than originally framed; however, there was little interest in improving amenities for locals and winter tourism. This is incredibly frustrating as the framework appears flexible for the agency, but not for the public. Even the title states it is a “facility improvements project.”

When I have asked specific questions regarding management plans for proposed infrastructure, multiple times of multiple agency and consultant staff, I have been told that is management and this project doesn’t speak to management. Yet management choices on identical pieces of infrastructure can result in hugely different outcomes and opinions on whether an infrastructure change is desirable, or not. That the agency is proposing to use this facility DEIS to concurrently amend the MGRA management plan where it suits the agency results in confusion and a lack of clarity, making it difficult for the public to even know on what they are commenting.

Further, page 1-7, section 1.1.3 raises a huge concern. “In cases where there may be inconsistencies between this project decision and the 2015 MGRA Management Plan (e.g. management unit boundaries, ROS designations, estimated visitor use and visitor capacity, commercial allocations), the MGRA Management Plan would be updated based on this environmental analysis process. It is not fair, nor is it transparent, for the agency to pick and choose what management decisions, including some that have huge impacts, will be considered and which are put off to an uncertain future, while asking the public to go along with building infrastructure without knowing the management intentions.

#### **5. A solid and complete NO to Power Boats on Mendenhall Lake and any Docks and any Dock/Boat Storage Locations.**

I object to any discretionary power boat use on Mendenhall Lake. Power boats should be used for life and death emergencies only. Commercial outfitters who have power boats on hand should be required to absolutely minimize the use of power boats to life and death emergencies as well, and documentation of any and all uses be immediately submitted to the Forest Service for review and consideration of operational changes to the commercial outfitter to ensure that the situation that required use of a power boat is not repeated.

I object to any dock construction on the Mendenhall Lake shoreline, anywhere, whether for motorized or unmotorized use. The natural condition of the area is a large part of what makes it special. Any construction further displaces, detracts, and fragments. Keep the shoreline undeveloped and uncommercialized.

By extension, I object to any boat or dock storage yard, anywhere within the recreation area, even if that area was once a shooting range or wherever the vague mention of near the West Glacier Trailhead that one of the agency or contract presenters made.

I submit these comments by Jim Sepel from the Juneau Empire as part of my own:

- Wednesday, May 4, 2022 11:39am **OPINION**

### **By Jim Sepel**

After reviewing the USFS Mendenhall Glacier Visitor Facility Improvements Environmental Impact Statement which proposes allowing two 49-passenger gas/diesel powered boats or two 35-passenger electric boats (both requiring USCG inspections), I found several problems with these alternatives. First, when I asked the USFS for their "navigation chart" for Mendenhall Lake, they sent me their "bathymetric chart". A bathymetric chart only gives a general "layered" view of the depths, which happens to show depths over 200 feet. For navigational purposes, a NOAA Hydrographic Chart is required. There is no NOAA chart for the lake. Thus, there is no chart that shows navigational hazards such as the boulders that glaciers leave behind or any other navigational hazards, especially along shorelines or where they propose to build their docks. These boats will have a 4-foot draft. Surely there are boulders out there?

Second, from my over 30 years of conducting grounding and sinking insurance damage claims, I have learned that "The Rock Always wins." It doesn't matter if the boat is a 20-foot North River, a 35-foot inspected tour boat (like the one that sank next to Aaron Island a few years ago due to "operator error"), or a 1,000-foot cruise ship like the Costa Concordia (of which I served as a consultant on that casualty, another "operator error"). If one or both of the tour boats collide, or ground, the thin (1/4-inch) aluminum hulls can easily fail, even at no wake speeds. The bilge pumps on either of these boats simply will not keep up with a serious hull breach. The USFS chart does show steep gradients leading down to over 200 feet in depth. A SCUBA salvage diver is limited to 20 minutes at 130 feet. Any attempt to salvage a vessel in over 200 feet (with no visibility) will require "compression diving," which requires a tug and or barge with crane, and a decompression chamber. How would you get that on Mendenhall Lake? A sunken gas/diesel power boat would leak up to 300 or more gallons of fuel, not to mention the oil in the motors. Anyone can see that this places the Mendenhall Lake and the Mendenhall River (vital salmon habitat) at major risk. The cleanup all along the Mendenhall River would be extremely difficult. A sorbent boom can't be anchored in deep water.

The EIS states the the risk of boating would be minor. Really? Likewise an electrical boat with a bottom hull full of batteries could leach lead and acid into Mendenhall Lake and then rapidly down river, forever. This could happen if the battery case is compromised in the grounding. At that depth, water pressure of 101 pounds per square inch could be devastating. Also, the EIS is severely lacking the following basic elements: an operations plan for how the boats will operate; a search and rescue plan; a salvage plan; pollution mitigation and cleanup plan; and a fuel transfer plan (they plan to fuel the boats from a fuel truck near Skater's Cabin). And, to make matters worse, the Empire reported a few days ago that our Governor and his DNR Commissioner stated that "the public has the right to boating on

Mendenhall Lake.” I’m an avid boater; but, I don’t think I have the right to risk polluting such a pristine habitat.

The EIS plans for 999,000 visitors per summer. Two boats simply won’t be enough to provide equal access as described in the EIS. More boats makes the risk that much worse. Also, I can’t imagine that the two-lane road to the visitor center could accommodate all those buses. The EIS stated that the USCG said to “assume that ML is navigable”. The truth is, as of today, the USCG says that it is not navigable and that the river is only navigable up to Montana Creek (this is reportedly under study and could take years). During the summer, the river is used commercially for non-motorized tours down the river. Finally, the EIS violates the basic premise of the 1969 NEPA act, which says that the federal government will analyze all impacts this project may have to the environment. In my opinion, the USFS has not done that and this EIS is totally inadequate. It is just too risky to put any motorized boat on Mendenhall Lake. There is no question that tourism is great for my business; however, for the past 15 years I have been asking my friend, Kirby Day (local cruise ship representative): “How many tourists are enough?”

*Jim Sepel is an accredited marine surveyor, a retired United States Coast Guard commander, member of American Boat & Yacht Council and state of Alaska Boating Safety Advisory Council; and president of Sepel & Son Marine Surveying Inc., since 1992.*

**6. Management Unit Boundaries.** I absolutely object to changing the management unit boundaries. The DEIS is proposing what is essentially a dilution is the solution to pollution approach to overcrowding. Increasing the mixing zone doesn’t lessen the pollution and the cumulative impacts. Many public members reviewing the plan will miss the real and serious implications of changing the management unit boundaries, including type and volume of use and development.

The Forest Service has already been less than honest with the public and agreements made with respect to the **Dredge Lakes Unit**. Years ago, when things were also heated up around commercial use of Juneau trails, and a multi-agency and citizen Trails Working Group reviewed Juneau trails and several trails and the **Dredge Lake Unit were agreed upon as non-commercial areas**. I thought that was the case until learning, a few years ago, that Gastineau Guides had a “back door” trail to the Moraine Ecology Trail from the bus overflow lot and had essentially been using a trail I had long treasured as their private trail when the public-facing access points were closed for bear/people management. This was in complete violation of the community agreement reached, and done in darkness of public scrutiny or comment. The Moraine Lake Trail should stay within the boundaries of the existing Dredge Lakes Unit and commercial use should be ceased immediately. If access to the Moraine Lakes Trail via the bus overflow lot avoids the bear/people concerns, then it should be opened as a public, non-commercial trail. If they do not, then the trail should be closed completely. If the issue is people

with dogs, then close the trail to dogs, not local people.

7. **Invasive species.** Reed canary grass may be the only “extremely invasive” species, scoring over 80. Orange hawkweed scores 79. I have pulled orange hawkweed on the far shore of the Mendenhall Lake from the known patch near the visitor center. And, I’ve observed a patch near the visitor center being left to bloom (and then go to seed). When I reported it to a naturalist she didn’t know the name orange hawkweed and didn’t seem concerned. I don’t even know if she passed along word or did anything. Ten minutes with a garbage bag, pulling the plants that were in bloom, would have done a lot to stop the spread. As you all know, invasive species love disturbed areas. The Forest Service is proposing massive amounts of disturbance throughout all management units of the recreation area. You don’t have the staff to contain existing invasive. It is inconceivable that you will have and allocate the resources to ensure that everywhere you disturb will not be revegetated with invasive species, including the top five you list which quickly create monocultures.

8. **Trail “improvements.”** Like wildlife that is forced to change timing of activity and location, locals displaced from the trails accessed on the East side of Mendenhall Rec Area take to the lesser-developed fringes as we seek recreation in our backyard. Those fringes include the shoreline and Dredge Lakes. The pioneered trails you find are not necessarily because we need to get somewhere, but because we are getting away from commercial groups and the stress felt with overtourism. Picture some of us as bears yawning and snapping jaws from stress. We slink off the trail to avoid popping our bubble against overtourism. Many of us really prefer trails that still leave a close connection with nature as well. To feel the forest floor, the textures, the challenges of navigating footsteps. Trails hardened are hard on joints as well. This is an accessibility and health issue as mobility is important for healthy joints, and to keeping arthritic joints functioning. Give people with joint issues that do not require wheel chair access consideration, just as you give those who do require wheel chair users. Trails hardened with fill or asphalt for wheel chairs are those I avoid to protect my aging joints. Wood trails are comfortable, but impractical for long distances.

Further don’t take our rough trails and develop them to invite/allow commercial use. Any additional trails constructed on the West Glacier side should be strictly for non-commercial use and commercial/visitor fees should be used to construct these as mitigation to locals.

If you harden the unhardened trails, you will absolutely increase use. You will also push many of us back off trail again.

## 9. Road Widths, Parking Lots, and NOT Paving Paradise

All of the Action Alternatives propose additional paved parking lots. Any new pavement used in the recreation area should be pervious. Especially with the increases in number of buses, spewing particulates and otherwise discharge pollutants from tires, brakes, engine drips, etc., the Forest

Service must invest in the best possible solutions to reduce runoff toxic to fish and other aquatic life. If the Forest Service is going to push forward on creating acres of additional pavement in the area, they must budget and plan to the absolute highest standards possible. Pag 3-129 mentions achieving 80% reduction. Eight percent reduction in total volume from the current no action alternative? Or 80% reduction in whatever level is surface flow and leaching from the paved surfaces? You propose to pave 2/3 of the commercial parking lot used as “idling” and overflow for buses? What does that gain that offsets the advantages of leaving that entire lot as pervious surface? What management tools relating to permitting will be taken to reduce pollutants from the buses? Priority

“Upon these automotive habitats fall a variety of substances, and thereby hangs the rest of the tale. Impervious surfaces collect particulate matter from the atmosphere, nitrogen oxides from car exhaust, rubber particles from tires, debris from brake systems, phosphates from residential and agricultural fertilizers, and dozens of other pollutants. “On a parking lot, for example, we have demonstrated buildups of hydrocarbons, bacterial contamination, metals from wearing brake linings, and spilled antifreeze,” says Ferguson.

On a road of open-graded aggregate (stone), much of that material would seep down into the pavement and soil, and the community of microorganisms living there would begin a rapid breakdown process. But pollutants can’t penetrate an impervious surface, and the rapid flow of rainwater off of impervious surfaces means these pollutants end up in the water. “So then,” says Ferguson, “not only do you have too much water, all moving too fast, you have polluted water that kills fish and makes water unfit for drinking or recreation.

Despite the overwhelming body of evidence supporting the negative relationship between impervious surfaces and the environment, no one would seriously suggest that we stop paving streets or building parking lots. What, then, are the options?

According to Ferguson, there are nine different families of porous pavement materials. Some of these materials are already well known in the United States; they include open-jointed pavers that can be filled with turf or aggregate, “soft” paving materials such as wood mulch and crushed shell, and traditional decking.

Other families include porous concretes and asphalts being developed by engineers and landscape architects. Ferguson says these materials use the same components and manufacturing processes as conventional impervious materials, “and as a general rule, carry the same health and environmental issues. . . . Same chemicals, same energy costs to manufacture, but far different benefits in its use.” These new formulations still provide solid, safe surfaces for foot and vehicle traffic, but also allow rainwater to percolate down into subsurface soils.

The porosity of porous asphalt is achieved simply by using a lower concentration of fine aggregate than in traditional asphalt; it can be mixed at a conventional asphalt plant. Under the

porous asphalt coating is a bed of clean aggregate. Importantly, this aggregate is all of the same size, which maximizes the void spaces between the rocks, allowing water to filter through. A layer of geotextile fabric beneath this bed lets water drain into the soil and keeps soil particles from moving up into the stone.”<sup>2</sup>

**Road Design** isn’t just about the porosity of the surface. I don’t see that speeding on approach to the glacier is addressed. With the present construction of the absolutely straight road with wide shoulders, the design which is likely for 60mph or greater, encourages speeding. The best way to slow traffic is not with speed bumps and a flashing speed sign on a 60mph roadway, but by narrowing the roadway and using design elements to naturally calm traffic. This will lesson the hardened surfaces (helping water quality) while increasing safety for wildlife and pedestrians, and well done, it could also enhance the approach to the area, making it clearly a different zone than the Mendenhall Loop before it enters the Forest Service property. With real estate gained by narrowing the roadway and slowing traffic, you could add an narrowish unpaved pedestrian/ bike path on west side of the spur road, increasing pedestrian safety and eliminating the need for pedestrians to cross Mendenhall Loop when using the city bus system. You may also gain some already impacted space to increase trailhead parking along the spur road, reducing impacts on the environment. The motorcoaches navigate narrow downtown streets and drive onto the floating dock for Allen Marine. They can handle a much narrower road width than presently exists. Use a design speed consistent with the targeted traffic speeds. For reference to design speeds and safety, you might begin with <https://www.strongtowns.org/journal/2021/8/6/the-key-to-slowing-traffic-is-street-design-not-speed-limits>

#### 10. **Adaptive Management** for Commercial Outfitter, Guide, Transportation Services

I strongly object to the practice of letting outfitters and guides exceed a daily cap by adding on unused allocation from other dates. There should be an absolute maximum that is public knowledge and not exceeded, for each and every permit allocation on any day. Use it, or lose it each day.

And, if I understand correctly, the “season” is being extended to April 1-October 31. And then operators may lump unused days from these lightly used months into peak season? Entirely unacceptable. The lake was still frozen on to mid-April and the trails had so much ice that it would be high risk to take guided tourists on them. Adapative management just sounds like a way to keep taking from locals and giving to commercial interests.

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<sup>2</sup> Frazer L. (2005). Paving paradise: the peril of impervious surfaces. *Environmental health perspectives*, 113(7), A456–A462. <https://doi.org/10.1289/ehp.113-a456>



## 11. Cumulative Impacts, climate change, cruise ships, carbon

For reasons of climate change contributions and acceleration of the melting of the Juneau Icefield, including the Mendenhall Glacier, the Forest Service should be returning to the plans put forth by former Visitor Center manager John Neary to use capacity limits and access to limited capacity based on environmental performance (e.g. all electric buses) as one feature of doing less harm. Putting a hydro project back on Nugget Creek to generate power for the entire operations of the visitor center, and perhaps also charging vehicles and putting some into the grid.

Dr. Elizabeth Burton with Seattle Cruise Control calculated the carbon footprint of the Seattle-based Alaska cruise industry, including the air travel that 90% of Alaska-bound cruisers use to reach Seattle.<sup>3</sup> She found with a conservative estimate, that the carbon released was about 1/3 that of the entire Seattle year round carbon release. All of this is connected and any decision by the Forest Service to increase permits for tours sold on cruise ships allows them to continue an unabated increase in capacity. It is unrealistic to only include the GHG budget of cruise ships while at port in Juneau. When you are talking a contribution to GLOBAL climate change, we are all connected and when the ship is cruising out of Seattle, in Tracy Arm, taking a massive side trip up to Yakutat area to see the Hubbard Glacier, or whatever, it is all related to decisions you make for the Mendenhall Glacier as right now it is being used for default overflow tour offerings as cruise capacity expands far beyond community capacity.

Perhaps I missed or could not find any real and meaningful analysis of gas. Sustainability is a priority of Juneau. You have, or should have, the resources to create a real analysis. I don't. But I can tell what is in the DEIS is sadly lacking in depth. Claiming some bonus of GHG savings from unrealized mining from ore bodies that may or may not exist is really stretching to find some good in a bad plan. (page 3-185) The same goes for projecting that cruise ships may one day be using alternative fuels. Yes, perhaps they will. But by 2050 when they have made promises of being net zero with GHG, you project the glacier won't even be visible and they may well have long before that abandoned Juneau as an over tourists and deteriorated destination, or perhaps the cruise industry will have gone completely bankrupt and disappeared. There is lots to speculate. Meanwhile the GHG footprint of the cruise industry overall continues to grow as the fleets grow. And, the Alaska cruises continue to burn the bunker fuel and rely on open-loop scrubbers to dump some of their air waste directly into the ocean.<sup>4</sup> It is all connected and you at the Forest Service have a real responsibility to make those connections in a meaningful and thorough way.

“There would be GHG emissions associated with helicopter landing tours within the Juneau

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<sup>3</sup> <https://southseattleemerald.com/2022/03/23/opinion-impact-of-cruises-on-puget-sound-waterways-and-beyond/>

<sup>4</sup> <https://www.ktoo.org/2022/04/28/scrubbers-are-supposed-to-clean-cruise-ship-stack-emissions-critics-say-they-pollute-the-water-instead/>

Icefield (page 3-185). So calculate them. You know how many flights. You should know what type of aircraft. You can get fuel consumption. What are the GHG costs of helicopter tours? And what is the black soot contribution, blanketing over the entire area of routes they fly. Then do this for cumulative impacts of other activities as well.

The DEIS team should read and carefully consider and apply the findings of the academic team that looked broadly at cruise ships and the environment. I pull this from Science Daily:<sup>5</sup>

“An international research team led the most comprehensive research review ever conducted on what was one of the fastest growing industries in tourism before the pandemic.

The review, published in *Marine Pollution Bulletin*, finds that cruising is a major source of environmental pollution and degradation, with air, water, soil, fragile habitats and areas and wildlife affected.

The research also finds that the cruise ship industry is a potential source of physical and mental human health risks, to passengers, staff and land-based residents who live near ports or work in shipyards. Risks to specific groups include the spread of infectious diseases, including COVID-19 outbreaks widely reported on some cruise ships. The review also found evidence of the impacts of noise and air pollution on health, and difficult working environments for boat and shipyard staff potentially resulting in injury and mental health issues.

The review combines evidence from more than 200 research papers on the health of people and the environment in different oceans and seas around the world. The research was conducted by a collaboration spanning Spain, Croatia and the UK.

First author Dr Josep Lloret, of the University of Girona, said: "Our paper highlights that cruising is a prime example of how the fates of our health and our environments are intertwined. Up until now, most studies have looked at aspects of this in isolation. Our review is the most comprehensive to date to combine these research fields and take a holistic view of how cruising damage our environments and our health. We now need global legislation to minimise damage on both our oceans and our health."

Professor Lora Fleming, of the University of Exeter, an author of the review, said: "Cruise tourism is a was rapidly expanding pre-COVID-19, and our research shows it causes major impacts on the environment and on human health and wellbeing. We need much better monitoring to generate more robust data for the true picture of these impacts. Without new and strictly enforced national and international standardised rules, the cruise industry is likely to continue causing these serious health and environmental hazards."

The review combined research papers on a range of factors which have environmental or health impacts, or both. In one example, they synthesised six papers on carbon dioxide emissions, which have significant impacts on both human and environmental health, through contributing to

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<sup>5</sup> <https://www.sciencedaily.com/releases/2021/09/210928193815.htm>

global warming. Available research suggest that a large cruise ship can have a carbon footprint greater than 12,000 cars. Passengers on an Antarctic cruise can produce as much CO2 emissions while on an average seven day voyage as the average European in an entire year. Within the Mediterranean, cruise and ferry ship CO2 emissions are estimated to be up to 10 per cent of all ship emissions.

A 2007 study found that emissions factors for cruise ships journeying to New Zealand were at least three times higher than emissions factors relating to international aviation. Energy use for staying overnight on a cruise vessels was 12 times larger than the value for a land-based hotel.

The paper also includes research on solid waste as example of an activity from cruise ships which impacts both health and environment. Reducing plastics and marine litter are major global challenges, and a total amount of rubbish produced by a cruise ship carrying 2,700 passengers can exceed a ton per day. While cruise vessels make up only a small percentage of the global shipping industry, it is estimated that around 24 per cent of all waste produced by shipping comes from this sector. Figures calculated for cruise ship visits to Southampton during August 2005 indicated that 75 per cent of garbage being generated by passengers on board was incinerated and disposed of at sea, with a number of reports of illegal waste disposal reported in the Southern Ocean.

Co-author Dr Hrvoje Caric, of the Institute for Tourism in Croatia, said: "When environmental standards between cruisers and land-based polluters are compared, it becomes clear that there is a lot of room for improvement. We've long known that cruise ships cause damage to the environment, however it's hugely important to incorporate the impact on human health into that picture. We hope that research like this will prompt action to help cruise industry become more environmentally sustainable.""<sup>6</sup>

"The intensive growth of cruise tourism worldwide during recent decades is leading to growing concerns over the sector's global environmental and health impacts. This review combines for the first time various sources of information to estimate the magnitude of the cruise industry's environmental and public health footprints. This research shows that cruising, despite technical advances and some surveillance programmes, remains a major source of air, water (fresh and marine) and land pollution affecting fragile habitats, areas and species, and a potential source of physical and mental human health risks. Health risks impact both the people on board (crew and passengers) and on land (workers of shipyards where cruise ships are dismantled and citizens inhabiting cities with cruise ports and shipyards). In this context, we argue that the cruise industry should be held accountable with more monitoring and regulation to prevent or minimize the growing negative environmental and human health impacts.""<sup>7</sup>

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<sup>6</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0025326X21010134?via%3Dihub>

<sup>7</sup> Marine Pollution Bulletin, Volume 173, Part A, December 2021, 112979, Environmental and human health impacts of cruise tourism: A review

12. I realize that the nordic ski community is very excited at the idea of a bridge and links to extend skiing linked skiing possibilities in Dredge Lakes area. I believe that is making them blind to the other consequences of pushing through a **trail along or near the Mendenhall Lake shoreline**. Fragmentation of habitat for small mammals is a concern of mine. The road/trail proposed will be a serious barrier to passage. And, all of the disturbed area combined with construction equipment will make a high likelihood of spread of invasive species into that area in a big way. And, that is the area of the Mendenhall that was, by community process, decided to be noncommercial use only. If the Forest Service wants to pursue this trail, then I recommend that they first get the CBJ involved with a public process of non-commercial trail use review to decide what is traded for having commercial use into this area. What trail now under commercial use in the Mendenhall Recreation Area will the operators give up in order to get this? And is what is offered acceptable to the community?

How will this trail, as proposed, be managed? I have asked and been told that is for later decisions. Well, without knowing how it will be managed, how can we comment? Management plans with trail plans, community discussion, and then decide.

13. **Campground impacts from proposed through trail and Mendenhall trail bridge.** Note, I remain opposed to the bridge and lakeside trail, but if it goes, adding trailhead parking and additional traffic is incompatible with the campground and I strongly oppose parking and additional vehicle traffic within the campground. The campground road is now a place people go for walks and families bring children to safely practice riding bikes. Much better would be to place additional parking outside of the campground, perhaps further expanding the newest parking lot by the Skater's Cabin so it would be available for winter use as well, when there is frequently insufficient parking. Manage and sign the campground road as motorized access only for campground guests and that motor vehicles yield to pedestrians and bicyclists. This will extend the pleasant and effective distance of the trail system, create less adverse impact on campground users, and be safer for everyone.

Do not touch, improve, or otherwise change, the interior of the campground, the area where the existing narrow path and viewing platforms exist. This is a rare treasure of tranquility and wildlife watching. Adding bicycles or a bunch of through traffic would destroy the character of this special area.

14. **Cabins in Campground.** I very much like the idea of public use cabins in the campground. There is obviously huge demand for dry cabins, and especially those that are easily accessible for families. I've stayed in a yurts in Oregon and Washington campgrounds and observe that they are typically clustered within a campground to minimize impacts between various user groups. They are also not in the best locations, because they create an additional attraction by themselves. I would suggest spaced 46-51 as good locations for cabins, in addition to one for the campground host. The cabin size should be more in line with the size of the Peterson Lake cabin than 600 square feet, unless that square footage includes the loft. They should clearly be cabins, not houses. Covered outdoor deck space is a bonus in this climate.

Ideally, the host cabin could be built so that it could serve as a day use warming shelter during the daytime during the winter. This could make the area more attractive for families.

**15. While We're Talking Campground Improvements,** in multiple scoping sessions I suggested adding a hiker/biker campsite area to the campground and was told that type of improvement wasn't in the scope of the project. Since cabins now are (I was told they weren't too), I will raise again the suggestion of adding a hiker/biker area to the campground. If you are not familiar with these, they are communal areas where everyone who arrives under their own steam is able to stay, there is no such thing as full and additional people squeeze in. No reservations necessary. Fee is per person. And, fee can be paid on site (I'll touch more on that later). Here is a list of hiker/biker sites in Washington state with some explanation. I encourage you to contact colleagues at campgrounds with these sites to learn more on how to design and manage. For our climate, a covered area like the cook shelter at the walk in sites at Mendenhall is great. In fact, the walk in area could be converted into a fabulous hiker/biker site with little effort, mostly a change in management and remove most of the fire rings back there so more tents can squeeze into the campsites, and people cook and have a fire at the communal kitchen.

**16. Campground Management re Fees.** The decision to switch to a card only online booking system for the Mendenhall Campground, while it may be efficient for the Forest Service is, I expect, a barrier to use for many people. I encourage you to go back to allowing some sites that people can simply pay their fee in an envelope or to the campground host. For any number of reasons, not everyone can access online bookings in the moment. And, adding the booking fee on top of a one day campground rental puts the fee much higher and creates a barrier for low income locals who use the campground for small at home vacations.

**17. Purpose and Need** I dispute the purpose and need. There are alternatives to building huge infrastructure to deal with crowding and deteriorating quality of experience. You have the permitting capacity to limit commercial tours to a level where quality is possible. You do not need to let everyone that the cruise industry wants to sell a ticket to visit the glacier. The industry greed should not drive the Forest Service. Be like Glacier Bay National Park and limit entries and use the limited entry and high demand for a quality offering to demand electric buses and other ways to improve the environment even beyond the recreation area footprint.

Juneau is facing overtourism as it is. The Forest Service, with the preferred alternatives, is helping to exacerbate this. More traffic. More ships. More noise. More pollution. More non-resident seasonal workers unable to find housing, pushing more tour operators to buy housing and convert it to seasonal housing, further hurting our housing supplies. You are not looking at the big picture and you should. An economic analysis if you want to use the business and revenue rationale for your preferred alternatives should take a real and detailed look at the entire footprint that goes into someone coming to the Mendenhall Glacier on a tour. The leakage of money from non-resident owners, employees, cruise ship huge commissions, .... plus the footprint of impacts of all of the aspects.

18. **Welcome Center Complex.** An absolutely no to your proposed location. It blocks connection with the lake, is ugly and obtrusive. John Neary's plan to have the welcome center far back at the bus staging lot area makes more sense. And, if you made it a multi-story building with a raised lookout area, you would create great glacier viewing with a much broader perspective and a very different perspective than the existing center. Barring that, Laurie Craig's proposal would be my second choice. All staff offices and major storage should be moved from the existing center to the new one and the first floor of the existing center should again be opened to the public for interpretation, a library of reference materials or other deeper involvement reasons that the mainstream visitor wouldn't want but was available for those who did. The big part is to reopen the beauty of the old entry, with the stone ledge for the guest book and the rise through the stairs. I am bereft of the loss of access to that part of the visitor center every time I climb the stairs to enter on the top floor. At least the entry and stairs are historically public and should be returned to public access as an alternative to the main entry. Don't let your fee collecting and urge to cater to super high volumes keep that opportunity away. If nothing else, open that lower entry in the winter when you are not charging fees.

**Random:**

Page 2.12 You state "a few guiding companies provide water-based activities on the lake..." How many? Be specific. You have the data.

Anywhere you plan paved surfaces — pavement creates a flashier environment for flow and you should plan and budget for durable permeable surfaces instead of straight asphalt.

If there is to be food and beverage service in a welcome center or other facility, it should aim for sustainability and not allow any use of single use plastics, cups, etc. Single use is bad for the environment and invites people to walk away (and outside) with food/beverages. Single use will become litter, and will create a trash and a litter burden. The Forest Service should not feel they are responsible to rush as many people through the entire experience and location as possible to maximize dollars earned by business. If your goal is the experience and education, that doesn't happen at microwave speeds. Create a setting where people need to invest some time at the glacier to have the full experience. Create a situation where people experience the value in having a snack or a coffee in reusable dishes. Reward a caterer who comes up with an innovative menu that allows them to serve quality, healthy food that supports sustainability, and minimizes waste in food and packaging. Reject any that use disposable cups, plates, etc.

**Displacement** and Capacity Analysis— nowhere do I see anything that attempts to quantify the displacement of locals by the commercial overtourism that drives us away. I have asked in prior commenting opportunities for this to be studied. Just talk to locals and hear them mentioning goodbye hikes as they will avoid the area for the summer. Why were the Forest Service staff or consultants not actively studying the local use of the Mendenhall in 2020 and 2021 to see a measurement of use without displacement from cruise tourism, and then with the impacts of a much lighter level of cruise tourism the last few months of summer 2021. That was, hopefully, a once in a lifetime study opportunity that the Forest Service bungled. Or, if you have that data, I do not see incorporated.

The estimates of non-commercial to commercial use also does not take into account displacement. If we aren't there, it isn't that we don't want to be, but that you have allowed so many people that it is not a pleasant experience. Given that a lot of the people who cruise don't even know if they are in a park or a national forest, nor what the difference is, nor do they even care (my observations and reading of some research over the years, I cannot offer citations off hand), why would you feel that your rangers with a few moments of contact, between pointing to the bathroom and directing buses and bears, can make any impact with too many people there. Quality, not quantity.

**Dredge Lakes Outer Loop Trail** - only if 100% noncommercial use as this too is within the Dredge Lakes unit. If you want to have commercial use on this proposed trail, then tell let's have a community discussion on what trail or trails you will remove from community use. Can we have East Glacier Trail back? West Glacier? What about having limited predictable hours for commercial and non-commercial use that give non-commercial only use of East and West Glacier trails on Saturdays and Sundays? Give the community something we want in trade for taking away more non-commercial areas.

DATA issues:

Looking at **Table 2-2 on visitor capacity** with no action alternative, you calculate 543,000 capacity at Visitor Center Unit. You state that is the capacity without substantially diminishing the quality of the experience or resource. You designate 95% of that use to commercial. That leaves 27,000 service days allocated to non-commercial use. Cruise ship passengers walking from the city bus stop are non-commercial. In the summer I go past that bus stop and see cruise tourists. It is widely shared that is the cheap way to get there. Did anyone seek an estimate of numbers of cruise passengers who arrive in a non-commercial manner? You should. And visiting friends and family. And independent tourists who visit on their own, unrelated to cruise ships. And entire school groups from outlying communities, or even far away here for football and other competition. 27,000 service days isn't even one day per resident per year. I personally am probably at the Visitor Center Unit at least 80 times per year. I know several people who walk East Glacier trail almost every day for many months of the year. Others for whom Nugget Glacier Trail is an almost daily walk. The local bear viewing crowd at peak season after 8pm probably numbers over a hundred each day. Your allocation of 95% to commercial use has put

the area into the intense crowding that exists. You have management authority to reduce those numbers to protect the experience for everyone who goes. Again, you are not required to provide commercial access to all that the private businesses want to sell tours to. By the nature of sales, they are often working to create demand for something people didn't even know they wanted until convinced to buy it. Or, the bus to the glacier is a backup to for other tours that don't sell. Not your responsibility. The cruise industry should reduce their volume to meet the community capacity. Yet, under **3.7.5.3** you state there is limited quantifiable information available about unguided use levels and related trends. Some of us in the public have been asking you to work on gathering this data for years. Your failure to do so is not license to do what you please. And then you cite a McDowell Group 2020 study saying that "it is estimated that visitors arriving with transporters or guides (commercial) make up around 85 percent of those who visit the MGRA, and about 15 percent of those arriving are independent travelers or Juneau residents." So why, if you have and cite this study, would you allocate 95% tase to commercial in table 2-2? Are other scenarios using similarly flawed data, in a flawed manner?

You also state it is reasonable to assume that demand for commercial use will continue to increase. Your example in part is CLAA saying passenger volume similar to 2029. And yet, indications are that cruise ships are still not sailing anywhere close to full and that bookings are really soft as cruise lines continue with massive discounts and to deal with covid outbreaks on the ships. This is the perfect time for the community and the Forest Service and Juneau to reset cruise levels to something that matches our capacity to host in a quality manner and to maintain Juneau as a place we want to live in the summer if we don't have our hands in visitor's wallets.

**I object to Appendix B**, commercial use allocations and the use of the adaptive management plan to increase visitor days in a prescriptive way. You do not have objective data on existing non-commercial use, nor on displacement created by your management policy that results in overcrowding and diminished experiences by locals, causing them to avoid and area they would like to visit.

I realize I will always find more to comment on and may submit additional comments after the deadline, as I've been told I can (though the additional comments may not have standing for appeal). Your mismanagement of overallocation of commercial service days with a designation of 95% commercial use when you state the reality is that 85% is commercial use shows extreme bias.

More to come, specifically on noise and traffic impacts, including congestion, which are acknowledged but seem to be dismissed as not your problem. I don't think that is how the



environmental impact process is supposed to work.<sup>8</sup>Also on displacement. “more local and independent visitors would be using the new parking area within the campground to avoid the Visitor Center parking altogether.” Is this avoidance an acknowledgment of crowding and displacement? Or is the displacement planned through the imposition of parking fees to deter local use on the Visitor Center side?

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To the person who is dealing with this laundry list of comments, good luck. I do wish that the public had been afforded much more time to respond. I hope that with the myriad of people commenting, including many with a lot of expertise and background in various topics, the Forest Service becomes convinced that they need to return to the drawing board and start with management steps of limiting the commercial visitation. Understand that the depth and breadth of comments reflects the community’s deep love and attachment to this place. We will fight for it.

Regards,

Karla Hart

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<sup>8</sup> As I, as a Back Loop resident who frequents all parts of the Mendenhall Recreation Area, reads your preferred alternative: I will be displaced from the Visitor Center unit, suffer at times unacceptable levels of congestion, additional noise and impacts from traffic, I may see more helicopter tours over the valley than the already difficult to live with flights of seven every 15 minutes for 12 hours per day on the worst days, and you are expecting more locals to use other trails away from the recreation area because of improvements to those trails and displacement from the Mendenhall so on those other trails we all may go to to escape the crowds, we’ll have more interactions, albeit with locals. Meanwhile, you’ll just keep welcoming more people to the Mendenhall and building more attractions to counter the overcrowding and loss of natural attractions, that loss exacerbated by your management decisions which fuel global warming and accelerated ice field melt because of black carbon from buses, ships, and helicopters. I object. Your cumulative analysis is seriously lacking.