

## Appendix A: Notes from public meetings

### Chicken public meeting notes

**13 Sep 2022**

*The following are notes taken from the meeting in Chicken on 13 September 2022. They are intended to summarize the discussion from participants and may include opinions as well as facts. Comments are organized by topics; they are in rough order of when they were discussed during the meeting; they and are not ordered by priority.*

The meeting opened with introductions; in addition to State of Alaska planner Don Perrin and Confluence Research planners Doug Whittaker and Dan Shelby, attendees included the following:

Name	Email	Affiliation
Dick Hammond	<a href="mailto:fma@fortymilemining.com">fma@fortymilemining.com</a>	Local federal claim mine operator; Fortymile Miners Association
Ted Fallat	<a href="mailto:theodorefallat@gmail.com">theodorefallat@gmail.com</a>	Local dredge mine operator
Robin Hammond		Chicken Post Office; spouse of Dick Hammond

### Recreational mining

- Occurs mostly in the Jack Wade area. BLM manages this use.
- But a few placer mines on the South Fork invite guests who pay fees to use claim owner's equipment and camping facilities. Gold Fever may be the name of one such operation.
- There are other recreational operations other than Gold Fever (possibly Bronk Jorgenson out of Chicken).

### Long term camping (by miners along navigable river segments)

- State permits for dredging on Mosquito Fork from Gold Creek downstream are not permitted to have long term camps because it is in a Wild section.
- Miners can camp on state land below ordinary high water or outside of the corridor but this can be nearly a half mile away.
- Camping on BLM uplands in WSR corridors is allowed some places on the South Fork because those segments are classified Scenic or Recreational.
- There were plans/programs for allowing some camping on BLM lands on the North Fork, but those were never finalized. Miners went through meetings with the BLM (there should be documentation for these discussions), but no final permitting process occurred.
- Miners complain that BLM compliance at permitted long term camps on the Scenic segments can sometimes be heavy-handed; BLM mostly conducts it by river trips, but sometimes by helicopters, and they may target some perceived violators.
- Designated allowed or disallowed camping places are potentially a solution but disallowing the entire corridor is not a good solution. There was an impacts assessment for designated camping sites but didn't get past the district/no full NEPA assessment.

## **Mining modalities**

- There are federal claims and state claims in the region. Federal claims tend to utilize heavy equipment at larger-scale placer mines. State claims tend to be dredgers, who do not often have opportunity to move placer sediments around with heavy equipment.
- Most federal claims are pre-ANILCA.
- A miner at the meeting has mostly federal claims.
- All Fortymile mines are considered placer mines.

## **AMPA paperwork**

- Miners are always concerned about losing a claim due to improper paperwork. Miners may have a mix of state and federal claims.
- APMA paperwork is required annually for either and has many pages/sections designed to provide consistency and comprehensive information – miners provide information for all relevant state and federal agencies.
- But miners complain about length and repetition in the documents.
- Each section seems to get longer and more complicated each year.

## **Compliance/enforcement**

- DEC comes through more than any other agency.
- Miners generally have fewer issues with state than federal agencies.
- Federal claim operations require plans for rehabilitation and recovery. Dredgers do not have the same issues.
- Army Corps of Engineers has been coming more frequently in recent years.
- Army Corps is looking closely at state permit operators because BLM addresses issues at federal claims.
- Reclamation standards are the most difficult to deal with. The original standards were like a contract to the miners, but they keep changing the standards.
- One miner uses Chicken - Franklin (old Fairbanks exploration) road to get heavy equipment to his claim. Doesn't have trouble, but his claim is the exception because it is close to Chicken.
- BLM compliance folks tend not to bother the heavy machine operators; they focus on 3809 operators.
- Dredgers get visits from BLM compliance officer. They are mostly good interactions. BLM comes by raft, hovercraft, or trucks.
- Usually, they are looking for specific violations – heavy focus on fuel storage (with names and dates on containers).
- One dredger uses fuel containers from 5 to 50 gallons. He has a 5-inch dredge that uses a gallon every day; 8 inch dredges use 5-6 gallons a day. So serious dredging operators use substantial amounts of fuel and need storage for it. Some dredgers bring in all their fuel at once in a flatbed trailer full of 55 gallon barrels (possibly in winter over ice).

- The fuel labeling rule seems petty to some dredgers. They don't enforce secondary containment and there doesn't seem to be a limit on quantity. One miner has talked to BLM folks in Fairbanks and read things on his own but the BLM officer is his primary contact.
- One dredger has not dealt with BLM camp restrictions (because he has a permit for his camp), but he has heard stories from other campers about concern focused on screening camp equipment from other river users and ensuring that all mining is conducted below bankfull flow levels. BLM wants dredgers to camouflage their dredge if they leave it for a week or even a few days.
- Bigger dredges do make a bigger sediment plume – some may be a mile long or more if water is low and currents slow. But DEC is the agency that regulates the sediment turbidity in the river; BLM is terrestrial impacts only. DEC typically focuses on the very biggest dredging operators (not the 6-inch dredges). DEC sometimes enforces a minimum distance between dredges to maintain water quality.

### **Claims**

- Many dredgers on the North Fork would like to make or work claims on upstream segments of North Fork but cannot get long term camping permits from BLM because it's a Wild segment.
- There are no claims on the Middle Fork that these attendees know of.
- Miners are acutely aware of state/federal navigability disputes and how that may affect their camping and claim access rights.
- High banking refers to equipment that gathers material from the dry gravel bar. May not be allowed in WSR corridor (because those lands would be uplands, not in navigable and thus state-managed).

### **Chicken trails litigation**

- Settlement discussions have been ongoing for two years.
- Final proposal was supposed to be done two weeks ago. Only a third of the trails we have identified for this plan are included in those settlement discussions.

### **Trails**

- Largest contention is where trails cross river corridors. Some trails are not obvious from the river. Some are old and it is hard to know if you are on them. Others are very obvious. Most can be seen from the air, especially where they cross swampy areas or on tundra ridges.
- In winter, deviations aren't necessary.
- Heavy equipment can weigh 60,000 lbs or more and must be finished by March 15th or so before ice breaks up or there isn't sufficient snow cover. Probably very little impact to vegetation or soils from this winter use.
- If winter trails/roads are only usable during the winter, they might still be considered an RS 2477 route (just like navigable flows don't have to be present all year).
- In summer, braided trails can become a problem. Many miners would be OK with a single gravel trail; miners want the easiest/cheapest/most direct route.
- Miners sometimes need to winch people out of swampy or steep areas – mostly hunters.
- Trails used by miners are typically repaired by miners as needed. Some are hard to maintain because no equipment is allowed on the roads when they are thawed.

- BLM gave a miner friend a hard time for a trail near Hutchinson Creek. Refused to let him improve it. Wanted miner to provide written notice 14 days in advance of any passage and charged him a fee, then finally stopped offering permits.
- Another trail BLM refused to let them fix it and noted the 1,500 lb limit (like state generally allowed uses limit).
- BLM may not recognize any RS 2477's at the present time (although settlement talks on several Chicken trails continue in an adjudication).

### **Conflicts between miners**

- There used to be some friction between the dredgers and heavy machine operators; its less of a problem lately.
- Conflict may have stemmed from amount of sedimentation downstream from larger heavy machine operators because many dredgers need visibility to do their activity. But there are many causes of turbidity (mostly high water).
- Different dredgers desire different flow conditions from low to high, but few operate during floods.
- Dredgers and heavy equipment miners need for unification because without it, BLM will roll over them.

### **Dredging**

- Some dredgers may leave their equipment up on the bank. This is the source of long term camping needs/problem in Wild segments.
- Dredgers often use hovercraft/airboats/jon boats to transport jerry cans of fuel; 55-gallon drums are mostly too big for their needs. Makes for challenging storage – especially if they have to camp on gravel bars and can't store fuel in secure location far from high water flooding risk.
- Dredge miner at meeting described his four claims (mostly on South Fork at several different locations – some accessed by boat and one by roads/ATV). His boat is a 16 ft flat-bottom jet with 50 hp.
- He operates out of a campsite in Atwater under BLM permit. It costs \$250 for camp site per season.
- Is any dredging allowed in California? Many dredgers here are originally from California, some still live in CA, but many also live in Tok. (<https://wildlife.ca.gov/Licensing/Suction-Dredge-Permits> ; <https://www.publiclandsforthepeople.org/dredging-resumes-in-california-now/>)

### **Dredging access**

- One dredge miner has a tunnel hull and a jack-ass lift on his jet boat. He claims it drafts about 4 inches, but he prefers 6 to 8. He shuts off his motor and drifts over shallow sections (when going downstream). If you can't stay on step it is safer to drift.
- Hell's Gate is a short trail from Taylor Highway to the river. Hell's Gate trail does not cross the river.
- His camp is in the South Fork unit that is Scenic but not Wild; BLM is allowing more uses here. There used to be trails parallel to the river on both sides of his Hell's Gate camp. He has asked BLM if he could use these trails and the answer was emphatically no. It is unclear which trails along this segment are state RSTs.

## **Mining impacts on fish**

- Grayling don't appear to care about dredging; they seem to like the turbid plumes – which may release food from the gravels.
- Miner has seen them right in his mask as he dredges. Miners claim they are aerating the gravel and releasing out of the gravel.

## **Transient dredgers**

- The dredger miner hasn't seen a dramatic change in the number of dredges in nine years. Maybe a slight increase. He told a story of two dredgers from CA who brought jet skis; almost killed themselves using them, then sold them to another dredger so they could afford to get back home.
- There's the whole range of retention rates from a few weeks to a few years to long-term dredgers. Many long-term dredgers enjoy the country in addition to seeking money from gold.

## **Hunting**

- Hunting occurs in early August to September. We are in moose and caribou season now.
- Caribou brings the most people. Caribou starts August 10 and could only last a few days or go until Sept 30, depending on harvest rates and status of the herd population.
- Hunters use many of the same trails as miners. Treaded vehicles moving quickly along the road cause impacts much more quickly than heavy equipment moving slowly on tracks. ATVs are tearing up the mining road/trail that he has been allowed to improve. The miners definitely feel a sense of ownership or stewardship for these roads/trails.
- Aggressive tire treads are a problem at any speed. The miners sometimes get blamed for damage caused by hunters who create new trails.
- Trail proliferation is a problem. Last night he saw flashing red lights with several vehicles skinning out a moose that was in the ditch.
- Once someone creates a trail it becomes "established" and more people start using it.
- Wide, less deep treaded tires would help.
- Firearm safety is a real issue in hunting season, miners have heard bullets whizz by.
- There is a whole network of trails along Chicken Ridge. There is a 100 ft no shooting corridor along the Taylor Highway – maybe needed along certain trails.
- There have been hunting closures along certain trails.
- Hunters met after meeting were interviewed briefly. They had been in area for 4 days. Their camp was 20 miles up the Chicken Ridge ORVTrail and it took 2-3 hours to get there via quad ATVs.
- They didn't encounter any adverse road/trail conditions, commenting that the miners took good care of the main route they used.
- These hunters were from Matsu Valley. They also had two six-wheel ORVs with trailers.

## Fairbanks public meeting notes

### 14 Sep 2022

*The following are notes taken from the meeting in Fairbanks on 14 September, 2022. They are intended to summarize the discussion from participants, and may include opinions as well as facts. Comments are organized by topics; they are in rough order of when they were discussed during the meeting, and are not ordered by priority.*

The meeting opened with introductions; in addition to State of Alaska planner Don Perrin and Confluence Research planners Doug Whittaker and Dan Shelby, attendees included the following:

Name	Email	Affiliation
Jen Reed	jj_reed@hotmail.com	interested in recreation area
R. Bruce Sachinger	robert.sachinger@alaska.gov	DNR-DMIW
Tim Hammond	thammond@blm.gov	BLM-EIFO
John Haddix	jahaddix@blm.gov	BLM-EIFO
Collin Cogley	ccogley@blm.gov	BLM-EIFO
Dianna Leinberger	dianna.leinberger@alaska.gov	DNR, DMIW
Jamie Marunde	marundej@doyon.com	Doyon
Deke Naaktgeboren	dnaak@blm.gov	BLM

#### Access

- By policy, BLM doesn't recognize RS2477s until they are recognized by courts and cannot be established at the level of officials at this meeting.
- BLM admits there is work to be done identifying certain trails and documenting impacts. Some locations of trails are confusing because they are on a map but hard to identify from the ground.
- The GIS layer within AK mapper (publicly available online map application with many RSTs identified) is not necessarily accurate, which is frustrating for the public who are looking to identify real trails they can use.
- DNR is aware of some inaccuracies and is not in charge of the AK mapper layer. It may be possible to identify less-accurate information in Mapper with a different color to inform the public better.
- It may make sense to identify State 2477 legal right of way trails vs. other trails that the BLM and State disagree about in this TMP and/or a forthcoming BLM TMP.
- There are also some 17B easements in the area. BLM doesn't manage 17B easements, they simply identify and reserve them in the conveyance. DNR does not have a charter or budget to manage 17B's.
- Doyon marks their land as private property to let folks know that there is no public access. The public can't access, set up camp, or do other activities on Doyon property -- just like private property. Doyon does publish ways for the public to get in touch with Doyon folks about their regs and access around their land.

- Trucks observed during recent trip to Chicken along the Taylor Highway may be Doyon shareholders or folks with permits. Identifying trails and communicating trail locations is a key goal of this project.
- There is disagreement among agencies whether RS2477s are already state property or need to be adjudicated before becoming state property.

### **Access facilities**

- “Stuff on top of stuff on top of stuff,” is a description of the overlapping patchwork of ownership, management, claims, etc. in this area. The TMP can help clarify these confusions.
- Facilities improvements for these trails and rivers will need interagency cooperation. The Fortymile takeout and South Fork putin are two places where BLM would like to cooperate on improvements with DNR.
- Uplands are out of DOT right of way and BLM would like to cooperate in those areas as well. DOT also needs to be in the loop on these.

### **Types of boats**

- BLM uses powerboats, helicopters, building program to conduct management and compliance activities. They use motorboats more.
- Larry Taylor lives at Fortymile bridge. The BLM used to contract with him to access certain sites. BLM has one hovercraft, two jetboats, and a Go-Devil Mudbuddy (<https://www.godevil.com/>).

### **Types of vehicles**

- Collin wrote the TMP for the BLM’s Resource Management Plan, similar to upper Yukon area plans from DNR.
- BLM is moving towards a curb weight standard (and away from gross weight). BLM tentative plan for Fortymile is 1500 lbs even though it has been 1000 lbs in other areas. Weight ratio would prohibit highway vehicles but would allow most side by sides.
- BLM is planning objective studies to see if there are differences between the weight and width ratings in impacts especially for permafrost. 1000lb curb weight is roughly compatible with their 1500 lb gross weight used in other management areas.
- The width rating comes from certain trails’ actual widths. UTV’s typically widen ATV trails and ruts. Once a UTV-width trail is established it makes the trail more attractive for full size trucks.
- BLM isn’t tied to a size of vehicle, their goal is a quality user experience, free flow of river, impacts, and consistency with WSR values (identified in previous plans).

### **Managing trail impacts and proliferation**

- Even with little enforcement, there are education efforts that can help. Public outreach, volunteer efforts, communication between user groups. ATV groups, jeep groups, etc. get involved to keep major impacts from happening.
- Most of the trails in Fortymile are on state land; they are only managed by BLM in WSR corridors. BLM doesn’t want to create choke points on those trails.

- There is a desire among the group to get on the same page. DNR would like people to stay on trails and encourages that, but Generally Allowable Uses (GAU) says people can basically go anywhere. That is why DNR hasn't issued maps in the past. Note that there are stipulations about impacts for DNR's GAU.
- Another issue is that state GAU regulations apply without a permit, but permits to exceed GAU regs are also available. Agencies wonder if possible higher weight limits would simply allow currently heavier vehicles to meet the standard (avoiding conflict with the reality of the trend toward larger ORVs), or whether such higher limits are acceptable because the difference in impacts is small. This plan may explore the issue.
- There are places where larger vehicles are appropriate. For example, woodcutting is an occasional use in the Fortymile and usually larger equipment is used for this.
- BLM would like to allow larger vehicles if the terrain allows their use without deteriorating trail conditions.
- BLM would probably support adaptive management to make trail specific regulations, vary vehicle size, establish seasonal closures, etc.

### **Long term camping**

- BLM and DNR agree for the need for coordination about long term camping.
- BLM's use plan allows for long-term camping in wild segments but there are some issues. Miners think they can set up a long-term camp anywhere in a scenic segment, but that is not how the program works. There are only certain sites that have been approved for long term camping.
- BLM suggests Wild areas are supposed to be "a vestige of primitive America" and may not be compatible with long term camps.
- Visibility, fuel, and aesthetics are issues but camp proliferation is the biggest problem. If there winds up being many camps, the character would no longer be wild.
- Long term camping in the Fortymile is perhaps a nationally unique issue for BLM.

### **Storage at long term camping**

- Some miners prefer to camp on the state-managed beaches but this makes their camps more visible.
- Fuel storage in the river corridor is an issue. Current plan requires secondary containment for any storage. A 5-gallon container that is in use does not need secondary containment, but anything larger than that is in storage does.
- EPA limit is 1320 gallons. Miners generally don't need that much fuel but many do not store even a couple of hundred gallons in compliance with secondary storage regulations.

### **Trail conditions**

- There is only one short hiking-only trail in the planning area; it is not designated non-motorized but only used by hikers.
- BLM monitors Fairbanks hiking trails facebook group <https://www.facebook.com/groups/FairbanksHiking>.

- There was a comment on this page that they couldn't find trails whenever they went out to Chicken.
- Delta trails association may also know about hiking in the area.
- There are more requests for bicycle only trails in the Fairbanks area. Fat tire and other bikers often have conflicts with mushers. Bikers have loose dogs with them and both parties are moving fast. There might be opportunities for hiking/biking/mushing trails in Chicken area.
- Opportunities for nonmotorized trails in Fairplay and near Eagle at the North end of the planning area. Mount Fairplay wayside is half BLM and half DNR, there is a hiking trail up to the top of Mt Fairplay.
- Doyon trespass concern at Joseph airstrip. Fly in and trespass. 17B issue.

### **Commercial mining recreation**

- If miners are on a state claim and camping at a BLM long term camp there is no issue with allowing commercial recreation mining (from BLM perspective).
- If they are operating on a federal claim, there are no commercial operations allowed on federal claims.
- BLM has heard from someone that commercial guests need to be on the state mining permit to be in compliance. DNR clarified that the permit they need is a commercial rec permit, no need for each guest to be on the AMPA application. This is something that the plan could clarify.
- BLM decided that there wasn't a SRP needed for the Gold Fever operation. BLM's camping limit is 10 days anywhere in the basin per calendar year which was established as a result of someone moving their camp across the river every 2 weeks.

### **Mining regs**

- No hard rock mining in Fortymile.
- There was one placer mine that removed a lot of material from the river.
- Some placer mining is problematic. Mining regs are not a topic of this plan, which is focused on travel to mining sites.

### **User education and stewardship**

- BLM plan identifies a few salt licks and Peregrine Falcon nests.
- Mosquito flats is an ACEC, and there is another Fortymile ACEC on North Fork.
- ACEC is Area of Critical Environmental Concern, a BLM designation. It just means that there needs to be some special considerations for managing such areas; it does not necessarily define greater restrictions on public or mining use.
- Currently, BLM does not specifically identify mining conflicts or regulations for these ACECs; it depends on submitted mining plans (annual plans).

## **Historical / cultural resources**

- BLM notes that public and mining impacts are not a major concern with historical resources.
- Old Franklin townsite is a historic resource, as is Boiler Bar where there is a big boiler river left at the confluence of the North and South Forks back in the woods. Long Bar, Steel Creek town site are other locations. But BLM has not identified substantial artifact collection or destruction at these sites as those were probably taken long ago. Would like folks to know where those are and appreciate them as that is one of the ORV's in the Fortymile area.
- Some trails of historical resources get close to places that Doyon really cares about. They would like to be kept in the loop and would like to keep general recreationists away from those areas. Most people want to do the right thing so there is an education component here.
- Need better information for public on who to call if they find something historical?
- BLM is working on a signage program to address impacts such as looting.
- DNR plan should differentiate between these categories of historical/cultural/archaeological resources.

## **Tourism development**

- Eagle would be interested in this and would like to be in contact with DOT. Group shared a few contacts for folks in Eagle. Used to be more tourist traffic there until the washout.

## **Jurisdictional confusion**

- BLM cannot comment much on which trails are obviously RS 2477's and which will be disputed.
- Dept of Agriculture working group is informing BLM how to communicate these jurisdictional boundaries. Hopefully we can at least communicate what the other agency's position is or direct them to the other agency for those places or activities.
- Decisions being made are several levels above federal staff in this room.
- For those in this room the land itself and user experiences are the most important but the higher up you go the more political issues get involved.

## **Maps or other information needs**

- Detailed GIS layers are hopefully an outcome of this planning effort. An app is also desirable but not a likely outcome of this effort.

## **General comments**

- BLM is interested in meeting with DNR to address the long-term camping issue. BLM staff in this room has the authority to make decisions on this issue. Doyon would like to be engaged before the plan comes out. Doyon will have some more ideas for us.

## **Anchorage public meeting**

**13 Sep 2022**

*A public scoping meeting was conducted in Anchorage on 11 October, 2022 on the first floor of the Atwood Building in downtown. The meeting opened with introductions; in addition to State of Alaska planners Don Perrin and Monica Alvarez; and Confluence Research planners Doug Whittaker and Dan Shelby (virtually), the only attendee was Zach Babb from the Rivers, Trails, and Conservation Assistance program of the National Park Service. State and Confluence planners reviewed the list of planning issues discussed at the Chicken and Fairbanks meetings. Mr. Babb described his role with the RTCA program and general interest in state trail planning. He promised to stay engaged with the process and looked forward to the draft plan in winter 2022-23.*

## Virtual public meeting

### 19 October 2022

*The planning team conducted a virtual public meeting on 19 October, 2022. Attendees are listed below. In general, state planners introduced to travel plan project and reviewed the list of issues discussed at previous meetings in Chicken and Fairbanks. Participants had few comments about specific issues, but several indicated continued interest in the draft plan and possible management actions.*

In addition to State of Alaska planners Don Perrin and Monica Alvarez and Confluence Research planners Doug Whittaker and Dan Shelby, attendees included:

<b>Name</b>	<b>Email</b>	<b>Affiliation</b>
Zach Babb		NPS RTCA Anchorage – Program Lead
Linda Hasselbach		NPS Yukon Charley NP – NEPA
Kyle Joly		NPS Yukon Charley NP – Wildlife Biologist
Kristin Pace		NPS RTCA Anchorage
Jamie Marunde	marundej@doyon.com	Doyon
Sue Goodglick	sue.goodglick@alaska.gov	Alaska Department of Fish and Game

## **Appendix B: Responses to web-based scoping issue prompts**

*The following are verbatim responses to a DNR web-base questionnaire about possible scoping topics (the same list used in the presentations at public meetings). Responses are not associated with individuals.*

### **Access**

- Access to navigable waters owned by the State of Alaska downstream from the confluence of Joseph Creek with the Middle Fork; North Fork downstream from the confluence of Slate Creek; Mosquito Fork downstream from Kechumstuk; West Fork downstream from Logging Cabin Creek; Dennison Fork; South Fork; O'Brien Creek; and Main stem Fortymile to US-Canada border.
- We need you to show us the access points. 17B and RS2477 trailheads.

### **Access facilities**

- Most public access facilities providing direct public access are located on Federal land managed by BLM (Joseph Airstrip, Taylor Highway Mile Posts 43, 49, 64, 75, 82,112 and head of O'Brien Creek, Long Bar Cabin and Steel Creek). Access at MP 66 is on private land. The Kink Public Use Cabin located near the Kink does not provide direct access to the North Fork but public access should be considered at that site. In addition to developed public access noted above, BLM has designated at least 70 long-term upland camps adjacent to placer mining operations taking in State-owned waters. Should also be considered as upland sites reasonably necessary to the general public using navigable waters.
- Improved parking area for the Chicken Ridge access trail.

### **Boats on rivers**

- 13-foot mini jet boat, 215 hp.
- Canoe and inflatable raft from Joseph downstream to Eagle on the Yukon River; canoe and kayak from MP 49 to the Clinton Creek Bridge in Canada. Boats powered by outboards with jet units to various suction dredging operations. I have also observed hovercraft access to suction dredging operations and the types of flotation used to transport the suction dredging equipment from the Taylor Highway to State mining claims located in State-owned waters.

### **Vehicles on trails**

- I have no direct experience using overland motor vehicles. However, I have observed the effects of overland vehicle travel including the effects of forest fire suppression lines created by bull dozers.
- 4-wheelers, side by sides for access to camp sites and exploring.

### **Signs of use impacts**

- The destruction of the habitat, serious eyesores and erosion being caused by ATV use during hunting season is out of control. This is due to the large and growing number of people with ATV's and the constantly expanding trail system. Why are the state regulations concerning breaking the vegetative mat and exposing the ground to erosion not being followed? This is out of control.
- Generally, unacceptable levels of litter, or dumping is most noticeable along the Taylor Highway. This has been exacerbated when the cooperative arrangement between ADOT-PF and BLM was suspended/terminated. BLM facilities noted above as well as private facilities at Chicken are well kept and serve as places for public sanitation facilities.

### **Long-term camping**

- I have never participated in long-term camping along the Taylor Highway or on the uplands comprising the Fortymile Wild and Scenic River.

### **Trail conditions**

- I have concerns about the current regulations with the curb weight of non-highway vehicles on state land. There is zero enforcement I have ever witnessed to address the concerns of land/trail degradation that are happening at an alarming rate within the Fortymile area. I witness new trails every year and no presence of state enforcement or management.
- The existing trails are being turned in to nasty, muddy, black lines of water and mud-filled, torn-up tundra. Some are turning in to new creeks during times of rain or runoff causing severe erosion. New trails are everywhere.
- Except for the Taylor Highway, there are no regularly maintained public access trails in the US portion of the Fortymile River Basin. Off-road travel will cause long-term changes to the vegetation complexes crossed. Trails created while trying to control forest fires in the late 1960s are still evident as are roads to the various mining camps and communities. Many of these trails provide access to public waters from the Taylor Highway. The BLM Interim Travel Management Plan-Fortymile Planning Area (Map 6) shows access trails providing public access to and across the Fortymile Wild and Scenic River. Considerable portions of the noted trails cross land owned by the State. The State should consider existing and potential future public uses associated with each trail and establish commensurate vehicle use by type and season of use. This effort needs to be coordinated with BLM when crossing a part of the Fortymile Wild and Scenic River and with Doyon Ltd.

### **Commercial recreation uses**

- The concern I have is how best to merge commercial recreation uses, suction dredging operations and general public recreation uses. The same criteria established by ADNR and BLM for long-term suction dredging upland sites should be used to establish any long-term commercial recreation sites.

## **Mining permits and regulations**

- Access to State and Federal mining operations within and adjacent to the Fortymile Wild and Scenic River is a mess stemming from the:
  1. Failure of BLM to update ANCSA Section 17(d)(1) and 17(d)(2) withdrawals specifically made for the proposed Fortymile Wild and Scenic River.
  2. Failure of BLM to conform land uses approved by the Secretary of the Interior in the Fortymile Wild and Scenic River Plan.
  3. Failure of BLM to initiate and complete the long overdue Fortymile Wild and Scenic River Management Plan. ADNR should consider the extent, if any, motorized access to suction dredging operations needs to also consider public non-motorized use.
- All mining permits must, respectfully, allow public access for outdoor recreation (fishing, hunting, trapping etc.).

## **User education / stewardship**

- The single most important issue is how best to inform the general boating public that travel downstream from the BLM facilities at Taylor Highway MP 112:
  1. Motorized access is likely required if a boater wishes to return upstream to MP 112.
  2. Access from the River to the Taylor Highway is extremely difficult.
  3. Entering Canada via the Fortymile River requires advance approval from the Canadian Government. Human sanitation while remote camping along the River.
- There should be more information about the fragility of resources in the area and the need to limit damages or effects to the resources. Stewardship programs (volunteer and state funded) to monitor effects or impacts is essential to understanding what is actually happening out there and be proactive to limit damage as best possible.
- See "other general comments" I don't know stewardship can be emphasized but there certainly is a need.

## **Sensitive wildlife or ecological resources**

- Concerns over the amount of off road/atv use that is taking place within the fortymile area. Specifically the mosquito flats area that is very wet, swamp bog area that is susceptible to vegetative mat destruction.
- The Mosquito Flats area is the largest body of wetlands in 20E. It is used by nesting and migratory birds and is a calving area for moose. It is very being encroached upon and torn up by hunters with ATV's.
- Bear safety and remote camping precautions to reduce bear-human interactions.

## **Historical / cultural resources**

- ADNR, Doyon, Ltd, local community, and BLM should provide generalized information about the historical/cultural importance in the Fortymile River Basin. Historical/cultural sites should have specific information about than site and how the public should respect the site.

- Much of the area has not been inventoried for cultural resources or historic properties. Additional information should be gathered to better inform the planning process.

### **Jurisdictional confusion**

- BLM needs to conform its public information materials and signs to clearly show and document the fact the Fortymile Wild and Scenic River DOES NOT include the State-owned waters.
- With recent changes via Doyon selections, many "no trespassing" signs have appeared but it is totally unclear as to land ownership delineation on the ground.

### **Map or other informational needs**

- See previous comments
- Need GPS locations for all RS2477 and 17B Trailheads.

### **Other general comments**

- I would like to see some kind of presence of management of current regulations or policies that seem to be ignored. There is visible degradation from off road/atv vehicles every year without any recourse to my knowledge.
- I conducted the original studies of the Proposed Fortymile Wild and Scenic River. That included providing BLM the river/stream segments recommended for withdrawal under ASCA Sec 17(d)(1) and 17(d)(2) and the Draft EIS under the direction of the Bureau of Outdoor Recreation. Subsequently, I worked for both the BLM and for ADNR with overall statewide responsibilities for multiple-use management on BLM and State lands. In 2019 I published a report "Fortymile Wild and Scenic River; Promises, Expectations, and Progress-19670--201i A Professional Journey." Copies were provided to BLM and DNR and is available at ARLIS.
- Social media (internet) has impacted hunting immensely along with trail use and abuse. There are so many new visitors to the 40Mile that don't have a clue where they are going or consideration for the lands or people who live here.

## **Appendix C:**

### **Summary of information from ADF&G about hunting and wildlife**

*The following appendix summarizes information about a range of fish, wildlife, fishing, and hunting issues in the planning area. This information contains coordinated input from ADF&G staff compiled by the ADF&G Access Defense Program in response to the scoping notice.*

#### **Species trends and hunter/harvest information**

##### ***Caribou***

- Caribou in the planning area are part of the Fortymile Caribou Herd (FCH).
- The FCH steadily increased from under 10,000 animals in the mid-1970s to a relatively stable level of about 20,000 in the 1990s, then increased again to approximately 80,000 by 2017 and declined since then. Preliminary results from a July 2022 photocensus indicates the herd currently numbers about 40,000. Population estimates and modeling can be challenging depending on weather and other conditions.
- Multiple variables contribute to herd fluctuations including weather conditions, harvest success, adult mortality, nutritional conditions, occasional low pregnancy rates, low-to-moderate calf survival, and predation.
- Caribou are harvested under Registration Hunt regulations and have included fall and winter seasons.
- The fall season is typically from August 10 through September (occasionally ended in mid-September for nonresidents).
- The resident fall bag limit is usually one caribou (except for 2020, when it was two). Sex restrictions varied by years, but nonresidents were always restricted to one bull.
- The winter hunt is residents-only and occurred from December through March before 2017, but has been from mid-October through March from 2018 to the present.
- Hunting with motorized vehicles during portions or all of the fall season is not allowed in two controlled use areas (CUA) (Glacier Mountain and Ladue River). However, motorized vehicle use is allowed with the Ladue River CUA on two designated trail systems.
- In Unit 20E within the plan area, fall harvest is much higher (average of 383 animals) than winter harvest (average of 71) (Regulatory Year (RY)12-RY21).
- The fall harvest within the plan area accounts for about 70% of the total Unit 20E harvest. The winter harvest within the plan area accounts for all of the total Unit 20E harvest.
- Hunter and harvest levels vary based on caribou availability near the Taylor Highway and associated trails systems like Chicken Ridge. Hunting pressure responds to information about caribou locations close to those transportation systems.
- Other higher hunting use and harvest occurs near the higher elevation areas near MP 99-105 on the Taylor Highway, along the Boundary cutoff, and along mining trails south of Boundary.
- Almost half (49%) of 20E caribou hunters travel using ATVs (all-terrain vehicles) (41%) and ORVs (off-road vehicles, e.g., side-by-sides, etc., 8%), although 35% report hunting with highway vehicles.

Only 9% hunt from airplanes; 3% from motorized and non-motorized boats; and <1% from air boats. Similar percentages were reported for successful hunters, although slightly higher proportions of success were achieved by hunters using airplanes, and ATVs with slightly lower proportions reported for highway vehicles and ORVs.

- Guided caribou hunting is very low in the unit (under 1%).

### ***Moose***

- Moose were periodically surveyed since the 1980s with more consistent surveys since the late 1990s, focusing mostly on the areas south of Chicken.
- Moose densities appear to have increased from relatively low levels through most of the 1990s to higher levels by the late 2000s. Densities roughly doubled (from about 0.7 per square mile to 1.4 per square mile) from 2005 to 2017. Increases may be attributed to large wildfires in 2004 and wolf control beginning in 2005. Densities appear stable since 2017.
- Resident hunts generally provided for an “any-bull” bag limit; nonresident hunts were antler-restricted.
- Residents have two hunt windows (August 24 – 28 and September 8 – 17). Nonresidents were only allowed to participate in the second season.
- As with caribou, hunting with motorized vehicles is not allowed in two controlled use areas (CUA) (Glacier Mountain and Ladue River). However, motorized vehicle use is allowed with the Ladue River CUA on two designated trail systems.
- Moose harvest in the area average 182 animals per year, and accounted for about 87% of the total Unit 20E harvest (RY12-RY21).
- A majority (55%) of 20E moose hunters travel using ATVs (44%) and ORVs (side-by-sides and ARGOS etc., 11%), although 25% report using highway vehicles. Only 10% hunt from airplanes; 9% from motorized and nonmotorized boats; and <1% from air boats. Similar percentages were reported for successful hunters, although slightly higher proportions of success were achieved by hunters using airplane, ATV, and ORV access, with slightly lower proportions reported for highway vehicles and boats.
- Guided moose hunting is very low in the unit (under 1%).

### ***Black bears***

- There is a three bear bag limit and no closed season. Bait is allowed from April 15 to June 30.
- Harvest in the planning area averaged 17 bears per year and accounted for 83% of total 20E Unit harvest (RY12-RY21).
- Harvest was generally split between spring (before June) and fall (after June).
- Most harvest was distributed through more accessible areas (with better road and trail access).
- Data on the number of black bear hunters is limited.

### ***Grizzly bears***

- There is a two bear bag limit with a season from August 10 through June. Bait is allowed from April 15 to June 30.
- Harvest in the planning area averaged 13 bears per year and accounted for 77% of the Unit 20 E harvest.

- Most harvest occurs in fall in conjunction with open seasons for moose and caribou.
- There is no data on the number of grizzly bear hunters.

### ***Other game species***

- River users hunt small game such as grouse, ptarmigan, and hare in the river corridors in Unit 20E year-round, but this probably coincides with powerboat use as part of other activities on larger river segments (South Fork near Chicken and Main Stem near Eagle). This use is thought to be considerably lower than hunts targeting caribou and moose.

### **Vehicles on trails**

- ADF&G does not collect information on the specific type of vehicles hunters use on the trails.
- Most hunters report using 4-wheelers over off-road vehicles (ORVs. e.g., side-by-sides, ARGOs [amphibious ATVs], tracked vehicles, etc.). They anecdotally estimate that of the ORVs used a higher proportion were side-by-sides and 6-wheelers, followed by Argos and other tracked vehicles.

### **Access issues and facilities**

- There is a single trail developed for access to the stocked Four Mile Lake off the Taylor Highway; this trail was recently improved in fall 2022 to reduce unacceptable conditions during wetter parts of the year.
- Doyon no trespassing signs are sometimes along the Taylor Highway adjacent to Native lands. It is unclear if these apply to overland travel or specific trails, which may include public 17b easements (which allow public access through Native lands). The history of these signs may include consultations with Troopers about minimizing trespass and improving enforcement assistance. The signs were spaced roughly .5 mile apart along the Taylor Highway where Native lands were adjacent. However, in a few instances the signs might be close to a legal 17b easement, which could be confusing. An example is the sign at MP 21 which is next to a 17b easement. ADF&G staff likewise noted that Doyon “No trespass” signage in or around the Four-Mile Lake trailhead could confuse the public regarding access to the stocked lake; working with landowners to appropriately locate such signage could be helpful.
- Area biologists report relatively few complaints about access issues; their work does not typically focus on access concerns and enforcement. Alaska Wildlife Troopers may have more specific information about access and compliance topics.
- Access facilities (boat launches) are provided at locations where the Taylor Highway crosses the West Fork of the Dennison Fork, Mosquito Fork, South Fork, and the Fortymile Mainstem. Some of the sites may benefit from improvements.
- A vault toilet at the Four-Mile Lake trailhead might alleviate some human waste issues.
- Access facilities would be most useful at major hunting staging areas such as West Fork Bridge (MP 48); the Mosquito Fork Bridge (MP 66); MP 99-105; and the Boundary Cut-off. These have congestion and overflow parking during the short intensely used hunting season. Less elaborate facilities are needed at several gravel pits along the road.

- There are occasional litter impacts at some access and staging areas. A bear-proof trash can might help reduce such impacts, with possible locations including Mount Fairplay Wayside (MP 35) and Four Mile Lake trailhead.
- If such facilities are developed, it is suggested to use bear-proof trash cans and accompanied by stewardship education about proper storage of fuel, food, and other potential wildlife attractants (especially when unattended).
- The highest use hunting staging areas for moose and caribou are at West Fork (MP 48) and Mosquito Fork (MP 66) bridges.

### **Local vs. non-local hunting conflicts**

- ADF&G reports increased user conflicts between local and nonlocal hunters along the Taylor Highway. This trend has been noticeable for about 15 years, with discussion focusing on intense harvest pressure and unsafe conditions. (Technical Paper 469).
- In 1970s and 80s, caribou seasons were set to avoid Taylor Highway crossings during the season to benefit subsistence hunters (Gross 2015). With 1989 McDowell decision, all Alaskans were allowed to participate in subsistence hunting on state lands (with federal lands still utilizing a rural preference).
- In 1990s, joint state and federal management was used and led to reduced quotas and complex regulations. This eventually led to the creation of a FCH management planning team that considers input from local Advisory Councils and the federal Eastern Interior Advisory Council.
- The current system establishes four zones with different harvest opportunities. Zones are closed after a quota of animals have been harvested.
- Local hunters prefer to participate in federal hunts that do not attract as many nonlocal (Matsu, Anchorage, and Fairbanks) hunters.

### **Long term camping in river corridors**

- It is common for hunters to leave items in the field at camping sites that they use on an annual basis; we are not aware of this causing significant issues.

### **Trail conditions**

- Four Mile Lake trail improvements were made to address boggy conditions through tundra/black spruce areas. It had led to multiple trailing that was difficult to traverse in larger ATVs or side-by-sides.
- Many trails used in winter for trapping become visible and attractive to some ATV users in summer or fall hunting seasons; these are rarely able to accommodate the higher use without substantial impacts. This creates braiding through wet areas. In drier years, the problem is not apparent; in wetter years, the routes can become impassable.
- Trail hardening can work in small sections, but it is often cost-prohibitive to improve an entire miles-long trail or route.

- Heavier ATVs are contributing to increased trail degradation; ATV industry advances in types and sizes of vehicles move faster than user education, trail repair, or regulation at addressing the problems.
- ADF&G recognizes that the primary system of trails used by hunters for moose and caribou off the Taylor Highway has seen substantial erosion impacts in certain locations, as well as general trail proliferation off the main routes.
- The most significant impacts are on the poorly drained routes that begin just north of the West Fork Bridge at MP 48. The trail heads towards the Mosquito Fork. Rutting and braiding on this trail are visible from the air. Once the trail arrives in the Mosquito Flats, there are few vegetation impediments to travel, and the trail network is expanding across the swampy tundra, with increasing impacts.
- Several primary trail systems in the area (e.g., Chicken Ridge, Nine Mile, and Boundary trails) were developed by miners, and some continue to maintain those primary routes. Hunters expand out from these primary trail systems.

### **Commercial recreation uses**

- Guided moose hunting is very low in the unit (under 1%). However, 6% of all moose hunters and 15% of all successful moose hunters use commercial air taxi services.
- Guided caribou hunting is also very low (under 1%). About 7% of all caribou hunters and 15% of all successful caribou hunters use commercial air taxi services.
- Air taxis generally distribute hunters in space and time through the unit (although moose season is relatively short and makes that challenging). There is some competition for limited landing sites between different commercial air taxi services (and to a lesser extent between commercial air taxis and private pilots).
- Fly-in moose hunters had a 39% success rate, which was higher than ORV hunters (31%), ATV hunters (25%), boaters (20%), and highway vehicles (10%).
- Fly-in caribou hunters had an even higher 66% success rate, compared to ATV hunters (35%), boating hunters (31%), ORV hunters (31%), and highway hunters (23%).

### **Miner vs. fishing hunting conflicts**

- Few conflicts have been reported by hunters or anglers within the Fortymile River drainage.
- A few Upper Tanana anglers have reported miners' complaints about trespass from boat-based anglers or others who follow miner's trails to fishing areas. In general, some anglers may not feel comfortable fishing in waters adjacent to miner camps.

### **User education / stewardship**

- ADF&G Habitat Section issues General Public (GP) Fish Habitat Permits which identify locations where the public may cross streams without acquiring additional permits, these may be found on the ADF&G Habitat webpage. General permits have conditions that avoid and minimize impacts to fish and fish habitat while allowing public access to hunting, fishing, and recreation areas. ADF&G

has published an educational brochure “Off Road Vehicle Crossings at Salmon Streams” on the subject of ORV crossings at streams.

- ADF&G has a Hunter Information and Training Program that touches on several stewardship topics and hunter ethics. Trail use and overcrowding issue may be topics of side conversations. The course is offered in the Tok area.
- Trail use is an allocation issue dealt with by the Board of Game. Questions should be directed to the Fairbanks F&G Advisory Committee.
- A mobile app designed for hunting and fishing pre-trip planning and to enhance in-field experience is available from ADF&G. The app helps organize regulation information and help record harvest in the field.
- The Division of Sport Fish has an interactive map, [gofishak](#), where fishers can discover and get information on sport fishing opportunities, including popular fishing locations, species run timing, fishing gear selection, and boat and angler access tips.
- A webpage about hunting moose and caribou in Fortymile country from ADF&G includes a FAQ (frequently asked questions) section that covers several stewardship issues.  
<https://www.adfg.alaska.gov/index.cfm?adfg=caribouhunting.40milefaq>
- ADF&G maintains a Fortymile Caribou Hotline (907.267.2310) to publicize current hunt openings and closings. As noted above, the registration hunts have a quota that frequently results in a short time frame closure.

### **Sensitive wildlife or ecological resources**

- There are no specific concerns for small game species.
- The Anadromous Waters Catalog (AWC) documents waters with salmon/anadromous fish presence, or spawning and rearing habitat. The AWC is updated annually and currently is the most up to date fish surveying information we have on salmon/anadromous species presence, spawning and rearing in the vast upper Tanana and 40-mile drainages.
- The 2015 State Wildlife Action Plan lists wildlife that qualify as Species of Greatest Conservation Need (SGCN); these are generally declining, under threat, or of cultural, ecological, or economic importance. As of November 2002, there were four known SGCN in the planning area (all bird species: olive-sided flycatcher, solitary sandpiper, wandering tattler, and Smith’s longspur). These were mostly located in the Mt. Fairplay area.
- The Mosquito Flats is a sensitive ecological area for several wildlife species and has seen increasing use by ATVs and ORVs in the past 20 years. Most human presence is limited to a relatively short fall hunting season, but the physical impacts of ATV trail proliferation are longer-lasting. Their ecological impact is generally unknown.

## Appendix D: Summary of information about ATV/ORV vehicles and impacts

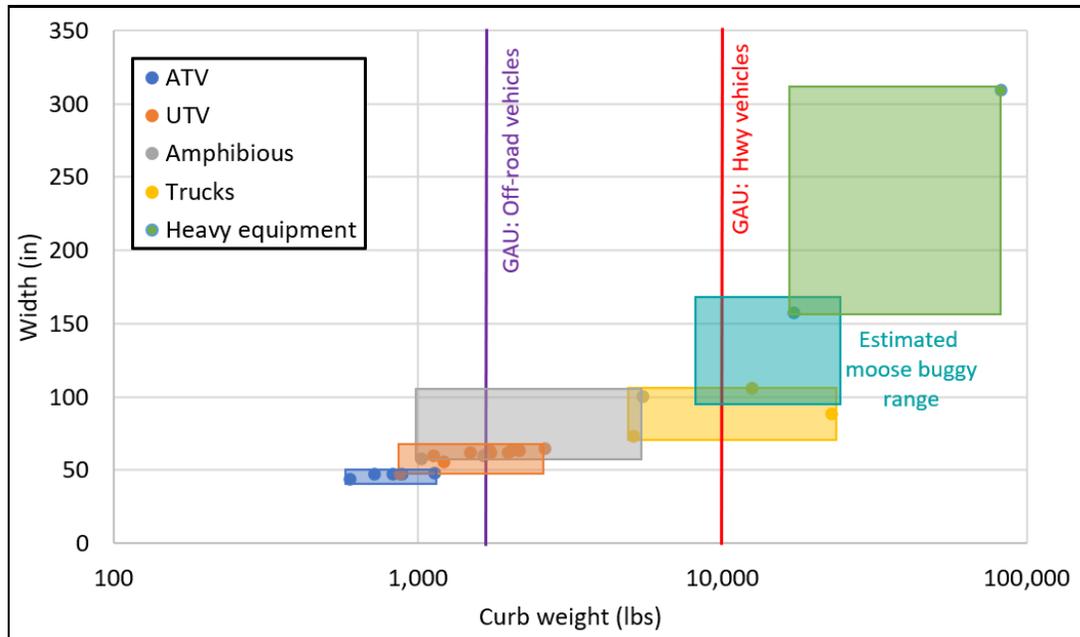
*The following appendix summarizes information about trail vehicles and related impacts in the planning area. It includes a short review of vehicle types (along with their width and weight specifications) and how those may affect area trail conditions or related issues. Information was distilled from multiple sources, including ATV/UTV dealers and webpages, UTV customizers, Fortymile area ATV users, and NGO webpages dedicated to ATV impacts and stewardship.*

### **Vehicle types**

- It is useful to divide different types of vehicles into recognizable classes based on size and potential for impact.
- People and agencies use many different labels for different types and sizes of vehicles. It is beyond the scope of the current document to definitively classify the range of vehicle types, but we have settled on a few basic categories as described below:
  - **ATVs** (all-terrain vehicles) refer to standard quads or four wheelers that are ridden from a saddle-type seat and are steered via handlebars. They are typically designed for a single rider, but some may carry two.
  - **UTVs** (utility terrain vehicles) refer to larger side-by-side quads that generally have roll bars and steering wheels, and some are partially or fully-enclosed. They are designed for at least two passengers plus cargo, and some may carry more. (ADF&G appears to include side-by-sides under their ATV classification).
  - **4X4 Vehicles or ORV trucks** refer to full sized trucks or similar off-road vehicles that are also designed for highway use. These are fully outfitted vehicles, typically enclosed, and some may have campers or other customization for backcountry use. They tend to be substantially wider and heavier than side-by-sides. (ADF&G appears to include 4x4 vehicles under their ORV label, which also appears to include ARGOS and some tracked vehicles).
  - **Amphibious and tracked vehicles** refer to six-wheel ARGOS (which can also float to cross rivers or wetlands) or other vehicles that have been outfitted with tracks to cross wet, muddy, or steep terrain.
  - **“Moose buggies”** refer to customized, and usually oversized, 4x4 vehicles that have even larger tires, more ground clearance, and often greater weight. Some are built-up full-sized trucks, while others are customized tractors. We distinguish them because they tend to be larger and wider than typical 4x4 vehicles.
  - **Heavy equipment refers to excavators and bulldozers** or related equipment used by miners in the Fortymile area. These are substantially heavier and wider than the other classes of vehicles.

## Vehicle weights and widths

Figure 1 below shows typical ranges of weights and widths for each of the vehicle types described above. Note that weights are on a logarithmic scale (because the larger classes are so much heavier than the lighter ones). We have also noted the prescribed weight ceiling for the two listed types of trail vehicles under the State of Alaska's Generally Allowed Uses (GAUs): 1,500 lbs. for ATVs and 10,000 lbs. for highway vehicles (4x4s).



**Figure 1.** Typical widths and weights of different types of vehicles used in the Fortymile area.

Data suggest that while most ATVs are well below the GAU ceiling for ATVs, many UTVs or side-by-sides are not. Similarly, it appears that some 4x4s are heavier than the 10,000 lb. limit prescribed for their class, and we estimate that most moose buggies may also exceed that limit.

### Other notes about vehicles on trails

- ATVs require some skill to operate which used to pose a barrier to entry for off-roading.
- UTVs are sometimes considered safer and easier to operate than ATVs. They are prominently featured at offroad vehicle dealerships and are marketed as highly capable off-road vehicles. That may give less experienced operators a false sense of security about their vehicles' capabilities.
- In reality a UTV is probably heavier, less capable, higher impact, and more likely to get stuck than an ATV, especially if the driver is less experienced.
- Some stakeholders attribute recent declining trail conditions to the growing number of UTVs on trails that were once primarily used by ATVs.
- Within the ATV and UTV classes, the trend is towards heavier and wider units.

- Both classes contain models with dual-rear axles and towing capacities comparable to a Jeep Wrangler (which would be considered a highway vehicle 4x4).
- Heavier vehicles of any type are more likely to get stuck on wet or muddy trails, do more damage to vegetation, and leave deeper ruts.
- Trail widening and proliferation happens when wider vehicles don't fit inside established tracks.
- ARGO amphibious vehicles are used in some areas of Alaska. These float in water, have more axles, and have low tire pressure systems that distribute weight across the ground. Taken together, these features probably make ARGOS lower impact than UTV's or ATV's.
- ARGOS do not appear to be common in the Fortymile region despite their otherwise similar capabilities and cost to ATVs.
- Moose buggies are custom off-roading vehicles with tracks or oversize knobby tires or tracks designed for wet and muddy conditions associated with the Alaskan tundra. These range from stock trucks with aftermarket wheels and suspension to converted tractors or ground-up custom builds.
- Some moose buggy configurations have a full-size passenger cab, camper, and pickup bed large enough to haul ATVs/UTVs and supplies for several days of hunting.
- The heaviest moose buggies weigh 20,000 lbs or more.
- Alaska DNR can issue special use permits for moose buggies in GAU areas, but they do not often see applications for such uses and compliance checks are rare in any case.

### ***Trail widening and track widths***

- Trail widening happens when progressively larger vehicles are routinely used on a trail. For example, a trail could start out as a single track (hiking, biking, or snowmachine trail) but eventually becomes wide enough that it attracts use by small ATV's. Once there are two well-defined tracks, ATV's of all sizes and some small UTV's may begin using the trail. By the time the largest UTV's are regularly using the trail, it is wide enough that smaller 4x4 highway vehicles like jeeps use the trail. Eventually full-size trucks and large offroad vehicles might follow. This width/size trail progression is not inherently an adverse impact, but the nature of the trail does change through this evolution.
- Trails can widen rapidly in wet conditions regardless of axle width, but if a vehicle's axle is much wider than the existing track(s), the operator is likely to straddle a track or make a parallel trail.

### ***Trail proliferation***

- Braided trails tend to form at sites where the trail becomes heavily impacted and drivers choose to make a new trail instead of following existing tracks, usually when standing water leads to deep rutting or mud.
- After one vehicle cuts a new trail around a wet or muddy spot, others are likely to do the same. Without addressing the drainage problem, the second trail also becomes impacted, leading to further trail proliferation.
- Proliferation can also happen when drivers encounter track widths that don't match their vehicle's axle width. Those drivers have the option to straddle a track or make an entirely new trail.
- Hunters can increase trail proliferation while looking for animals or approaching a downed animal. For some groundcover types, a single vehicle pass leaves a visible trail making other vehicles likely to follow.

- Impacts from trail proliferation vary seasonally. Summer impacts tend to be low as rain in the Fortymile region in summer is often local and for short durations. But by late summer and early fall, when rainy conditions tend to be geographically larger and longer, impacts can be high. Rainy weather often starts just before hunting season.
- Foggy conditions that often accompany rain make it harder for hunters to navigate, which makes trail proliferation even more likely. Severe trail impacts have been observed when wet conditions coincide with a popular hunt.
- Miners are relatively less likely to be responsible for trail proliferation. Dredging operations are mostly supplied by jetboats or hovercraft, and federal upland claims have been stationary for decades. Heavy equipment miners in the uplands are more likely to repair an existing road than make a new one.
- Under DNR generally allowed uses, off-road vehicle use can still be limited if it results in “water quality degradation, alteration of drainage systems, significant rutting, ground disturbance or thermal erosion.”
- Many of the highly visible impacts to Fortymile area trails are not in compliance with Generally Allowable Uses under this definition, but most users and agency staff acknowledge that managing ATVs/ORVs to such a standard would require much greater field presence and compliance/enforcement. Generally Allowable Use regulations provide a framework to take management actions that maintain good trail conditions, but they would probably require greater attention to stewardship education and compliance to be effective.

### ***Miners and their equipment***

- Miners have permits to transport heavy equipment on roads that lead to their claims. Any vehicle heavier than a highway vehicle is generally required to be used during late winter (before April) when roads and trails are still frozen and snow-covered.
- Compliance with the winter transportation window is generally high because the equipment is needed on-claim through the mining season.
- Road repairs are a common cause for heavy equipment on the trails. According to their permit, miners can make repairs to roads and trails that lead to their claims; this may engender a sense of ownership of the trails.
- For each improvement, miners are required to fill out an online form and get permission from DNR. Because miners generally want a road/trail fixed immediately (and may not have internet access outside of Chicken), they may conduct such repairs without permission.
- With or without a permit, miners sometimes use heavy equipment from their claim for those repairs. Equipment used for heavy equipment placer mining could weigh anywhere from 10,000 lbs to 80,000 lbs.