

# Department of Natural Resources

## Division of Mining, Land and Water



## Fact Sheet: Off-Road Travel on the North Slope on State Land

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A land use permit, issued by the Department of Natural Resources (DNR), is required for all off-road travel on all state land on the North Slope (11 AAC 96.014(b)(1)). The Division of Mining, Land and Water (DMLW) and the Division of Oil and Gas (DOG) issue these permits. Permits are issued for a maximum term of five years, and they contain stipulations intended to minimize potential damage to tundra vegetation and the ecosystem. They also require that if damage to the tundra does occur the damaged area must be rehabilitated to the satisfaction of the DNR. The permits are issued for either summer tundra travel (July 15 until winter off-road travel opening), winter tundra travel (freeze-up until winter off-road travel closing), or both. Note: to avoid significant damage to the tundra environment and reduce potential wildlife impacts, no off-road travel, except for true emergency situations, is permitted for the period from break-up until July 15 due to super-saturated soil conditions and migratory bird nesting.

Travel across non-vegetated state lands such as shorelands, tidelands, and submerged lands is subject to permit requirements. The exceptions for permitting include subsistence activities and travel on existing gravel roads. Off-road travel within the Dalton Highway Corridor is also subject to additional restrictions pursuant to AS 19.40.210.

### WINTER OFF-ROAD TRAVEL

The DMLW Northern Regional Land Office actively monitors snow depth and soil temperatures throughout the winter season to determine when to open the tundra to winter off-road travel. Monitoring stations are located within four tundra opening areas: the Western and Eastern Coastal areas, located within the arctic coastal plain, and the Upper and Lower Foothills areas of the Brooks Range. The tundra is opened to winter off-road travel in the Coastal areas when the soil temperature at a depth of 30 cm reaches  $-5^{\circ}\text{C}$  and there is an average of six (6) inches of snow on the ground. In the Foothills areas, tundra opening occurs when the soil temperature at a depth of 30 cm reaches  $-5^{\circ}\text{C}$  and there is an average of nine (9) inches of snow on the ground. The date of winter off-road travel opening has ranged from as early as November 2 to as late as January 27. In recent years, the foothills tundra opening areas have not consistently opened to winter off-road travel. Once the tundra has been opened in the winter, there are no restrictions on the type of vehicles that may operate on the tundra under a permit.

In years when opening criteria are not met the tundra may be opened conditionally with specific operating restrictions, such as only operating with vehicles approved for summer off-road travel (described below). Conditionally approved travel is encouraged when there is sufficient snow to begin pre-packing for ice road construction.

When a qualitative assessment indicates that thawing conditions have resulted in snow that will be too soft or too limited to permit travel, without resulting in damage to the tundra, winter off-road travel is closed. Off-road vehicle operators are subsequently notified, via the listserv, and given 72 hours to move their vehicles and other equipment off the tundra and onto the road system.

### SUMMER OFF-ROAD TRAVEL

Permitted summer tundra travel is limited to vehicles that have been tested and approved by the DMLW. The purpose of vehicle testing is to determine which vehicles can operate during the summer without causing damage to the tundra. Vehicles are approved in the configuration tested; for example, a vehicle tested with a payload of 1,000 pounds would be limited to that payload when operating in the field. A vehicle tested and approved with smooth tracks would require retesting if the vehicle is to be operated with wheels or cleats.

It is important to understand that off-road travel will always cause disturbance (e.g. crushing vegetation), but disturbance alone usually does not indicate that damage has occurred. Vegetation is most resilient during the first pass of the vehicle. With each successive pass, damage is likely to occur. The primary concern for any off-road travel activity is whether the travel results in more heat penetrating below ground and thawing the permafrost, leading to long-term changes in

hydrology and topography. The stipulations listed below are intended to minimize the potential for irreparable damage to the tundra. The following general stipulations apply to all permits issued for summer tundra travel, excluding airboats:

1. Operations shall be kept to the minimum necessary to complete the approved task.
2. The crossing of tussock tundra shall be kept to a minimum.
3. The crossing of ponds and lakes is not authorized.
4. Minimum radius turns shall be avoided where possible.
5. Multiple passes over the same area shall be kept to a minimum.
6. All operators shall be made familiar with arctic vegetation types and landforms to ensure compliance with the above. Training materials will be reviewed by the DMLW. Training shall be provided on an annual basis and reported to the DNR.
7. The state reserves the right to limit, restrict, or require retesting of vehicles at any time.
8. Incidents of damage to the vegetative mat and follow-up corrective actions that have occurred shall be reported to the DNR within 72 hours of occurrence. The DNR will determine if additional rehabilitation actions are required of the permittee.
9. Vehicles cannot carry more payload than was carried during the certification test.
10. Operators shall make every effort to minimize the negative effects vehicle operations may have on wildlife.

The following stipulations, in addition to those above, apply to direct drive wheeled vehicles exceeding 3,000 lbs. (e.g., Argo Centaur, Fat Truck):

1. Tire tread or paddles must be no more than 1.5 inches in height and the inner and outer edges must be rounded.
2. If equipped with a bilge, contents may only be drained to hydrocarbon containment.
3. Tire pressure may not exceed 1.5 PSI during summer use, and in most cases, tire pressure should be near 1 PSI.

The following stipulations apply to permits issued for summer airboat use only:

1. Only airboats with a plastic-coated bottom and prop with four or more blades are approved for tundra travel.
2. Use of airboats will be limited to spill drills, exercises, and actual responses.
3. Use will be limited to transportation of the boat across land to access a water body for use in a spill drill, exercise, or actual response. Use for ferrying passengers or equipment is not authorized.
4. Airboat operators shall make every effort to minimize the negative effects airboat operations may have on wildlife.

### **SUMMER APPROVED VEHICLES**

The following vehicles have been tested and approved for permitted summer tundra travel. For specific information regarding the approved payload limits and other restrictions, or for scheduling a tundra travel test, please contact the DMLW.

- Airboats (for use in spill drills, exercises, and responses only)
- Arctic Trucks AT44 Ford F150 4x4
- Argo 8 I/C with smooth tracks
- Argo 6X6 Frontier 580 with Supertracks
- Argo 8X8 Avenger 750 HDi with Supertracks
- Argo 8X8 Aurora 950 with rubber tracks or Supertracks
- Argo Centaur XT (Sherp) with modified tires (maximum payload, including passengers, is 1,100 lbs.)
- Haggland Bearcat, smooth track configuration
- Kubota RTV900 with LiteFoot tracks (maximum payload, including passengers, is 500 lbs.)
- Kubota RTV900 with modified TJD X tracks (maximum payload, including passengers, is 500 lbs.)
- Kubota RTV1100 with LiteFoot tracks (maximum payload, including passengers, is 1,595 lbs.)
- Lindsey Snow Walker (used only during pre-packing operations)
- Pisten Bully 100 Trail, smooth track configuration
- Pisten Bully 400 Trail, smooth track configuration
- Polaris Ranger 800 6X6, smooth tire configuration (maximum payload, including passengers, is 1,200 lbs.)
- Roller-driven vehicles equipped with large, bag-type tires (ex. Rimpull)

- Tow-behind sleds and trailers may be approved for summer use with specific vehicles. Please contact the DMLW for authorized vehicle types for use with sleds and trailers. Authorized sleds and trailers include:
  - Plastic smooth-bottom sled (maximum payload is 1,000 lbs. in sled)
  - DR Versa-Trailer with smooth tires (maximum payload is 1,500 lbs. on trailer)
- Tucker Terra Sno-Cat model 1600, smooth track configuration
- Tucker Terra Sno-Cat model 1600, TRB track configuration
- Tucker Terra 2000, smooth track configuration
- Zeal Motors, Inc. Fat Truck wagon with modified tires (maximum payload, including passengers, is 1,100 lbs.)

\*\*\* Please contact the permitting Division about restricted/conditional summer tundra travel of direct-drive vehicles equipped with large, bag-type tires (ex. NOV Rolligon).

### **TUNDRA DAMAGE REPORTING**

All incidents of tundra damage must be reported to the DNR within 72 hours of occurrence. Reports should include the date, time, and location of the damage occurrence, the size of the area impacted, and what caused the damage. When appropriate, reporting should also include the steps that will be taken to rehabilitate the area and an explanation of how the company plans to prevent such damage in the future.

### **USE OF UNAPPROVED VEHICLES IN EMERGENCY SITUATIONS**

In emergency situations, such as a catastrophic oil spill, unapproved vehicles may be authorized in cleanup operations if the response will be expedited, and the addition of unapproved vehicles will prevent further environmental damage from the event. For example, if a catastrophic spill occurred near a river, heavy equipment such as bulldozers may be effective in preventing oil from flowing into the river. In this example, the resulting damage to the tundra by heavy equipment may be minor compared to having large amounts of oil enter the water. The use of vehicles that are not allowed for summer tundra travel is limited to situations that will result in a significantly increased rate of oil spill clean-up.

An attempt to get verbal approval from the permitting Division must be made before unapproved vehicles are used in an emergency response. If verbal contact cannot be made, the intent to use heavy equipment for spill response must be included when reporting the spill to the DMLW spill report email [dnr.nro.spill@alaska.gov](mailto:dnr.nro.spill@alaska.gov). Justification for the decision to use unapproved vehicles must be provided to the permitting Division in a completion report. The permitting Division will determine when the "emergency phase" of an incident is over and when unapproved vehicles must be replaced by vehicles approved for summer tundra travel. All incidents of tundra damage resulting from the use of both approved and unapproved vehicles must be rehabilitated to the satisfaction of the DNR.

### **USE OF UNAPPROVED VEHICLES FOR SPILL DRILLS AND EXERCISES**

In limited circumstances, unapproved vehicles for summer travel may be used in spill drills or spill training exercises, under an appropriate permit. Pre-approval from the permitting Division is required and authorization will be considered on a case-by-case basis. Any damage to the tundra caused by these, or by approved vehicles, must be rehabilitated to the satisfaction of the DNR. Use of heavy equipment not approved for off-road travel will not be authorized for use in drills and training exercises.

**For additional information see the website:**

<https://dnr.alaska.gov/mlw/tundra-travel/>

**Sign up for the listserv:**

<https://list.state.ak.us/mailman/listinfo/dmlw.tundra.notification>

**Or contact:**

Department of Natural Resources  
Division of Mining, Land & Water  
Northern Regional Land Office  
(907) 451-2740  
[dmlw.north.slope@alaska.gov](mailto:dmlw.north.slope@alaska.gov)

Department of Natural Resources  
Division of Oil and Gas  
[dog.offroadtravel@alaska.gov](mailto:dog.offroadtravel@alaska.gov)