

Conclusion: Soil at 12 inches (30 cm) depth has reached an average temperature of 17.9°F (-7.8°C). Soil temperatures have decreased this past week, and the average soil temperature has officially met the standard of 23°F at 12 inches depth to permit tundra travel on BLM managed surface. Snow depths are highly variable but have reached the 6 inches (15 cm) average depth standard among actively reporting soil station sites. This snow depth level is sufficient to allow for pre-packing activities. Smaller streams and larger rivers within the NPR-A are now frozen.

The BLM and USGS maintain a network of monitoring stations across the NPR-A. These stations report realtime data\* on snow and soil conditions that may be used to help support the planning of tundra travel within NPR-A. For reference, the tundra may be considered open for off-road travel when snow depths average a minimum of 6 inches (15 cm) and the ground is frozen to a minimum of 23° F (-5° C) at 12 inches (30 cm).

For questions, please contact Matthew Ferderbar: mferderbar@blm.gov or Katie Drew: ksdrew@blm.gov. The number of stations reporting, and the dates of their last report may vary throughout the winter due to telemetry delays or failures. Station locations are depicted on the map above. The data shown is considered raw data and is reported "as-is". \* The number of stations reporting, and dates of their last report may vary throughout the winter due to telemetry delays or failures. Station locations are depicted on the winter due to telemetry delays or failures. Station locations are depicted on map above. \*\*The weekly soil station average is calculated using only data from stations that have successfully transmitted for that reporting week.



Photo taken 11/23/21 at Station H (Ocean Point) showing variability in snow depth cover:

- Left gauge is set on the top of a small tussock (3.6")
- Middle gauge is set on a low spot between two small tussocks (9.6")
- Right gauge is set at midway point between tussock and trough (7.2")

<u>Soil Station A</u> (12/17/21) Soil Temp @ 30 cm: 6.9°F (-13.9°C) Snow Depth: 2.8" (7.0 cm)

<u>Soil Station D</u> (12/17/21) Soil Temp @ 30 cm: 11.6°F (-11.3°C) Snow Depth: 3.1" (8.0 cm)

Soil Station G2 (12/17/21) Soil Temp @ 30 cm: 19.8°F (-6.8°C) Snow Depth: 12.6" (32 cm)

Soil Station Awuna \* Soil Temp @ 30 cm: Snow Depth:

Soil Station Fish Creek \* Soil Temp @ 30 cm: Snow Depth:

Soil Station Koluktak \* Soil Temp @ 30 cm: Snow Depth:

Soil Station Tunalik \* Soil Temp @ 30 cm: Snow Depth:

## Stream Gauge Fish Creek (12/17/21)

Water Stage Height: 18.7' (above MSL) Water Temp: 9.3°F (-12.6°C) Air Temp (1-week high): -5.4°F (-20.8°C) 12/12/21 Air Temp (1-week low): -42.2°F (-41.2°C) 12/15/21 Air Temp (1-week avg): -23.8°F (-31.0°C) Max Wind Speed (1-week high): 30.7 MPH Stream Gauge Judy Creek (12/17/21) Water Stage Height: 22.1' (above MSL) Water Temp: 15.8°F (-9.0°C) Air Temp (1-week high): -6.2°F (-21.2°C) 12/11/21 Air Temp (1-week low): -48.1°F (-44.5°C) 12/15/21 Air Temp (1-week avg): -26.7°F (-32.6°C)

<u>Soil Station B</u> (12/17/21) Soil Temp @30 cm: 13.1°F (-10.6°C) Snow Depth: 3.5" (9.0 cm)

<u>Soil Station E</u> (12/17/21) Soil Temp @ 30 cm: 16.2°F (-8.8°C) Snow Depth: 4.1" (10.5 cm)

Soil Station H (12/17/21) Soil Temp @ 30 cm: 14.8°F (-9.5°C) Snow Depth: NA

Soil Station Drew Point \* Soil Temp @ 30 cm: Snow Depth:

<u>Soil Station Ikpikpuk</u> \* Soil Temp @ 30 cm: Snow Depth:

Soil Station Lake 145 \* Soil Temp @ 30 cm: Snow Depth:

<u>Soil Station Umiat (12/17/21)</u> Soil Temp @ 30 cm: 11.0°F (-11.7°C) Snow Depth: 10.0″ (25.4 cm) <u>Soil Station C</u> (12/17/21) Soil Temp @30 cm: 28.7°F (-1.9°C) Snow Depth: 13.4" (34 cm)

<u>Soil Station G</u> (12/17/21) Soil Temp @ 30 cm: 27.5°F (-2.5°C) Snow Depth: 12.4" (31.5 cm)

<u>Soil Station I</u> (12/17/21) Soil Temp @ 30 cm: 22.2°F (-5.4°C) Snow Depth: 22" (8.7 cm)

Soil Station E Teshekpuk \* Soil Temp @ 30 cm: Snow Depth:

Soil Station Inigok \* Soil Temp @ 30 cm: Snow Depth:

Soil Station Piksiksak \* Soil Temp @ 30 cm: Snow Depth:

Soil Station Umiat Airfield \* Soil Temp @ 30 cm: Snow Depth:

## Stream Gauge Ikpikpuk River (12/17/21)

Water Stage Height: 13.4' (above MSL) Water Temp: 32.0°F (0.0°C) Air Temp (1-week high): -4.5°F (-20.3 °C) 12/11/21 Air Temp (1-week low): -46.3°F (-43.5°C) 12/15/21 Air Temp (1-week avg): -25.4°F (-31.9°C) Max Wind Speed (1-week high): 19.8 MPH <u>Stream Gauge Ublutuoch River</u> (12/17/21) Water Stage Height: 7.7' (above MSL) Water Temp: 19.9°F (-6.7°C) Air Temp (1-week high): -9.6°F (-23.1°C) 12/11/21 Air Temp (1-week low): -47.2°F (-44.0°C) 12/15/21 Air Temp (1-week avg): -28.5°F (-33.6°C)