

**ALASKA DEPARTMENT OF NATURAL RESOURCES**  
**Water Resources Section**

TO: Tom Barrett

DATE: December 29, 2021

FROM: Henry Brooks

FILE: LAS 30043

The subject water right case file has been reviewed for accuracy and conformance with statutes and regulations. The following comments, recommendations, or corrections are presented.

**Check for duplicate water use:**

TWUA A2020-75 is authorized for water withdrawals to Lake M9605 under the same applicant as LAS 30043. However, the authorized amounts are different. Upon issuance of LAS 30043, TWUA A2020-75 will be amended or terminated as appropriate to prevent duplicate water use.

**Public Notice/Agency Review:**

On-line Public Notice dated October 15, 2017. Newspaper Public Notice published in the Alaska Dispatch News on October 15, 2017. Deadline for response was 5:00 P.M. November 1, 2017. No comments were received. Agency Notice dated October 15, 2017. Deadline for response was 5:00 P.M. November 1, 2017.

**ADF&G, Habitat:** Jack Winters, ADF&G made the following comments: "The ADF&G has reviewed the LAS 30043 Water Right Application submitted by ConocoPhillips Alaska Inc. (CPAI) to withdraw up to 11,971,000 million gallons of water or ice aggregate from Lake M9605. I have attached the most current fish habitat permit issued to CPAI for water withdrawal from this lake as well as some additional information.

**Department of Environmental Conservation:** Charley Palmer, DEC-DWPP offered this comment, "Thank you for the opportunity to comment with respect to public water system (PWS) sources. Given the location(s) provided, these Water Rights Applications (WRAs) are not near an active registered PWS source. However, because the use for them includes "camp supply", they may be considered a PWS, so please ensure that the applicant is in compliance with 18 AAC 80, and in direct communication with the Drinking Water Engineer for this region, T.W. Brannan (CC'd here) "; Chelsey Passmore DEC-SPAR offered the following comments:" Based off a limited review, it does not appear contamination will be encountered from known contaminated sites. Therefore, ADEC Contaminated Sites Program has no objections. If contamination is encountered, contact ADEC.

**Bureau of Land Management (NPR-A):** Due to a concern that this cluster of water rights might be within BLM lands, the BLM Arctic District office was afforded an opportunity to review this and other applications. Alan Peck offered the following comment: "The BLM Arctic District had plotted the lake locations identified in the applications and found 1 of the 11 fell within the NPRA original boundary. That 1 location is within lands conveyed to a native corporation. As such BLM will not be providing comments."

**North Slope Borough:** no comment.

**DNR DOG:** no objection.

**DMLW-NRO:** No comments

**Effect on fish and game:**

The ADF&G issued a fish habitat permit (FH05-III-0328, Amendment 4, attached) for 6.973 million gallons of water plus 11.62 million gallons of ice on December 12, 2017, (expires June 1, 2023).

**Prior appropriators:**

A search of the Department's database for certificate holders of record, within sections 11, 12, 13, 14 and 24 of Township 10 North, Range 6 East, Umiat Meridian revealed no appropriators of records except the subject application. There is one temporary water use authorization, TWUA A2020-75, held by the applicant. also issued to Lake M9605. These are 'at will authorizations, with no standing under 11 AAC 93.970 (38), that can be amended or terminated if water use under either presents a potential risk to any appropriation. While the authorization holder of TWUA A2020-75 is the same applicant under LAS 30043, if any appropriation is issued under LAS 30043, TWUA A2020-75 will be amended as appropriate to remove duplicate water use. Consequently, there are no prior appropriators to be affected by issuing LAS 30043.

## **Water Availability:**

### **North Slope Lake facts:**

Thaw lakes are dominant features of the coastal plain. Thaw lakes have a major influence on North Slope hydrology. Thaw lakes are indicative of infiltration retardation and lack of groundwater movement in permafrost dominated zones, (i.e., water ponds or drains into the ocean on the North Slope, it does not drain into the ground!).

Lake size varies from small ponds to lakes that are 10 miles long by 3 miles wide. Some lakes are 20 feet deep; most are much less than that. Lakes deeper than 6 feet generally have a thaw bulb beneath; the size and depth of the thaw bulb being proportional to the size and depth of the lake. Thaw bulbs usually do not extend laterally beyond the perimeter of stable lakes and thus lakes have little to no chance of hydraulic connection to nearby channels or adjacent lakes. Maximum depth of the winter freezing of lake near surface water layer is usually 6 feet.

Lakes are the dominant winter water source for ice road construction. Water is taken in 2 ways:

- Ice can be removed from shallow (less than 5 feet depth) lakes as chips.

- Water can be removed from ***underneath*** the ice for lakes greater than 5 feet in depth.

Lakes less than 5 feet deep freeze to the bottom and no winter fish habitat is provided from these lakes.

### **The North Slope Water Withdrawal Guidelines**

The North Slope Water Withdrawal Guidelines (NSWWG) are intended to ensure coordination between DNR, DEC and ADF&G regarding water quality, water quantity, and water availability for fish when permitting water use on the North Slope. The clear intent is to prevent overuse and or damage to water and fish resources during winter ice road season, where under ice water volume is the primary water resource. The primary risk factors driving the NSWWG are 1.) Water under ice is the principal water source during winter operations and 2.) The high costs of winter operations combined with the heightened performance pressures increase the risk of over withdrawal. As such, the main targets of protection are the natural lakes on the North Slope. For example, where a lake may have a total volume of 1 million gallons, 20% of which would be 200,000 gallons, but permittable under ice water volume with resident sensitive fish, (those that need high levels of oxygenated water to survive winter) might be only 50,000 gallons. Additionally, the NSWWG do not supersede the respective statutory and regulatory authority of either DEC, DNR or ADF&G. Again, they are guidelines used to ensure that the respective statutes and regulations of the three departments do not conflict with each other in the management of water on the North Slope.

### **Water Availability under Alaska Statute 46.15**

*Sec. 46.15.030. Water reserved to the people.* Wherever occurring in a natural state, the water is reserved to the people for common use and is subject to appropriation and beneficial use and to reservation of instream flows and levels of water, as provided in this chapter. Under Alaska law, water is either appropriated, or un-appropriated. Only un-appropriated water can be subject to appropriation or authorized for beneficial use. As all the water of Lake M9605 is un-appropriated water, there appears to be 72.54 million gallons of water currently available for appropriation, (per bathymetric volume data submitted with the application) and consistent with the maximum authorized volume of 20% of total source volume. Application LAS 30043 while re requesting 11.971 million gallons of water and/or ice aggregate, or 16.30% of the presently available water. Issuing a permit to appropriate under LAS 30043 will leave 60.57 million gallons of un-appropriated water. However, under the NSWWG, the presence of resistant fish limits the wintertime under ice water withdrawals to an apparent 2.01 million gallons. 'Apparent' because the use of 2005 and 2014 bathymetric data has resulted in differing water volumes. DNR has chosen to use the more recent and lower 2014 Repsol bathymetry in this decision. Even the 2014 volume data, withdrawing the appropriated water leaves 65.57 Mgals of water available for beneficial use by others. Consequently, it is determined that issuing a permit to appropriate water under LAS 30043 will not interfere with or preclude the beneficial use of the (remaining) unappropriated water from Lake M9605 by other users.

Proposed means of construction: Adequate.

Proposed use of water: Beneficial. Water to be beneficially used in support of Oil and Gas production, development and maintenance operations on the North Slope.

Effect upon access to navigable or public water: None.

It is interpreted that the proposed use of water is in the public interest. This file contains no evidence of a likelihood of harm to the public interest.

**Determination:**

As the criteria of AS 46.15.080 (a) (1),(2),(3),(4) (b) (1), (2), (3), (4), (5), (6), (7), (8) have been met, the issuance of a Permit to Appropriate Water would normally proceed as a function of law. However, as a signed and notarized Statement of Beneficial Use was also submitted with the application for Water Rights accompanied by 6 years of water use records, in accordance with 11 AAC 93.040 (c) 11, it is also decided that a Permit and Certificate of Appropriation will be issued instead of a Permit to Appropriate Water. As beneficial use of water is already established at 6.894 million gallons, (the amount also requested in the Application for Water Rights), issuing a Permit and Certificate of Appropriation in the amount of 6.894 million gallons per year for established water use is appropriate.

**Application to Permit and Certificate of Appropriation**

**NECESSARY ACTIONS:**

☒ Concurrence : \_\_\_\_\_ ☐ Other : \_\_\_\_\_

  
\_\_\_\_\_  
Signature

12-30-2021  
\_\_\_\_\_  
Date

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of issuance of this decision, as defined in 11 AAC 02.040(c) and (d), and may be mailed or delivered to the Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska, 99501; faxed to 907-269-8918, or sent by electronic mail to [dnr.appeals@alaska.gov](mailto:dnr.appeals@alaska.gov) . If no appeal is filed by that date, this decision goes into effect as a final order and decision on the 31st calendar day after the date of issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to superior court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.