



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

Department of Natural Resources

DIVISION OF MINING, LAND, & WATER
Water Resources Section
Northern Office

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Fairbanks, AK 99709-4699
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TEMPORARY WATER USE AUTHORIZATION TWUA F2019-134

ISSUED: December 12, 2019
EXPIRES: December 11, 2024

Teck Alaska, Inc./Red Dog Mine
3105 Lakeshore Dr, Bldg A, Suite 101
Anchorage, AK 99517

Dear Environmental Management,

Re: Water Withdrawal –Red Dog Mine Water Management Project/TWUA F2019-134

The Alaska Department of Natural Resources (ADNR) Water Resources Section, has completed the review of your above referenced APMA and/or Application for Temporary Use of Water (TWUA) to withdraw, divert, impound, and/or use water in support of water management activities as detailed in the applicable sections of the APMA submitted to the ADNR Mining Section or in the TWUA Application submitted to the ADNR Water Resources Section. Pursuant to AS 46.15 (Alaska Water Use Act), and 11 AAC 93.210 and 220 (Temporary water use/Procedure for temporary water use) as amended and the rules and regulations promulgated thereunder, permission is hereby granted to Teck Alaska, Inc./Red Dog Mine, 3105 Lakeshore Dr, Bldg A, Suite 101, Anchorage, AK 99517 (hereinafter authorization holder), and to the authorization holder's contractor(s) to conduct water withdrawal activities as described herein and on any attachment hereto.

Please note all of the conditions on this authorization. This authorization does not authorize the discharge of the water pumped from the Tailings Storage Facility. Separate approvals for the discharge of the pumped water must be obtained, maintained and complied with by the authorization holder, as set forth in conditions 1, 3, and 6 of this authorization. If changes to this project are proposed during its siting, construction, or operation, please contact this office to determine if further review is necessary.

Project Description

Water withdrawal will be used in support of water management and mining activities associated with the multi-year Red Dog Mine Project. During winter months, water from the Tailings Storage Facility (TSF) will be pumped, and, to the extent it has the other necessary land access and water discharge approvals, it will be impounded and frozen

into ice cells/ice fields (see the East and West discharge areas on the below-described attached maps) upgradient of the TSF, that will then melt back into the TSF once weather warms in the summer season.

Daily Duration and Months of Use

Water use activities will be conducted up to 24 hours per day (or as otherwise limited by the maximum authorized gallons per day) January 1st through December 31st of each authorized year (2019-2024). Water will be pumped from the TSF during winter freezing conditions and will melt back into the TSF during summer thawing conditions.

Quantity of Water to Be Pumped and Legal Description of the Points of Water Withdrawal from the Source

Water Management/Pumping Activities (See the two water withdrawal locations on attached Red Dog Mine Water Management Project Location Map, and the attached Figure 1 Location Map – Water/Ice Storage Areas):

East Water Withdrawal Location from the Tailings Storage Facility

A total maximum withdrawal of 100 Million gallons of water per winter season at a maximum pump withdrawal rate of 2,500 gpm for up to 24 hours per day (3.6 Mgalpd). The take point will be located within SE1/4 Section 30, T31N, R18W, Kateel River Meridian.

West Water Withdrawal Location from the Tailings Storage Facility

A total maximum withdrawal of 100 Million gallons of water per winter season at a maximum pump withdrawal rate of 1,500 gpm for up to 24 hours per day (2.16 Mgalpd). The take point will be located within SW1/4NW1/4 or NW1/4SW1/4 Section 30, T31N, R18W, Kateel River Meridian.

Conditions of temporary water use authorization.

1. This authorization does not authorize the authorization holder or contractor(s) to enter upon any lands or to discharge water onto any lands until proper rights-of-way, easements, permission documents or other applicable written approvals from the appropriate landowner have been obtained.
2. Follow acceptable engineering standards in exercising the privilege granted herein.
3. Comply with all applicable laws, and any rules and/or regulations issued thereunder.
4. Except for claims or losses arising from negligence of the State, defend and indemnify the State, the State's agents, and the State's employees against and

hold each of them harmless from any and all claims, demands, suits, loss, liability and expense, including attorney fees, for injury to or death of persons and damages to or loss of property arising out of or connected with the exercise of the privileges covered by this authorization.

5. Notify the Water Resources Section upon change of address.
6. The authorization holder is responsible for obtaining, maintaining, and complying with other permits/approvals (state, federal, or local) that may be required prior to beginning water withdrawal, diversion, impoundment, use and/or discharge, including but not limited to waste management permit(s) and APDES permits from Alaska Department of Environmental Conservation, applicable approvals from the ADNRR Dam Safety and Construction Unit, and fish habitat permit(s) from the Alaska Department of Fish and Game (ADF&G), Habitat Division.
7. The authorization holder shall allow an authorized representative of the Water Resources Section to inspect, at reasonable times, any facilities, equipment, practices, or operations regulated or required under this authorization.
8. Failure to respond to a request for additional information during the term of the authorization may result in the termination of this authorization.
9. This authorization, or a copy thereof, shall be kept at the site of the authorized project described herein. The authorization holder is responsible for the actions of contractors, agents, or other persons who perform work to accomplish the approved project, and shall ensure that workers are familiar with the requirements and conditions of this authorization. For any activity that significantly deviates from the approved project during its siting, construction, or operation, the authorization holder is required to contact the Water Resources Section and obtain approval before beginning the activity.
10. The Water Resources Section may modify this authorization to include different limitations, expand monitoring requirements, evaluate impacts, or require restoration at the site.
11. Any false statements or representations, in any application, record, report, plan, or other document filed or required to be maintained under this authorization, may result in the termination of this authorization.
12. Pursuant to 11 AAC 93.220 (f), this authorization may be suspended or terminated by the Department of Natural Resources to protect the water rights of other persons or the public interest.
13. Except for the impoundment of water to form ice described in the TWUA F2019-134 application and in the Temporary Winter Water Storage Plan, Red Dog Mine document dated December 6, 2019 submitted with the TWUA F2019-134

application, no damming or diversion of waters is permitted unless specifically authorized by the Alaska Department of Natural Resources and the Alaska Department of Fish and Game.

14. Adequate flow and water levels, as determined by the Alaska Department of Fish and Game, Habitat Division, must remain to support indigenous aquatic life and provide for the efficient passage and movement of fish if any are present. Except as otherwise specifically noted herein or by attachment hereto, issuance of this authorization does not give the authorization holder the right to block or dam a water course. Any water intake structures in fish bearing waters, including a screened enclosure, well-point, sump, or infiltration gallery, must be designed, operated, and maintained to prevent fish entrapment, entrainment, or injury at the maximum withdrawal rate, unless specifically exempted by the Alaska Department of Fish and Game, Habitat Division. Inspect the intake screen for damage (torn screen, crushed screen, screen separated from intake ends, etc.) after each use and prior to each deployment. Any damage must be repaired prior to use of the structure. The structure must always conform to the original design specifications while in use. The suction hose at the water source take point must be clean and free from contamination.
15. Except as otherwise authorized or required herein, in-water activity to facilitate water withdrawal shall be limited to placement and removal of the intake structure only. No other in-water activities will occur to facilitate water withdrawal pursuant to this authorization. There shall be no wheeled, tracked, excavating, or other machinery or equipment (with the exception of the non-motorized screened intake box) operated below the ordinary high water line to facilitate water withdrawal pursuant to this authorization. Except as otherwise authorized herein, water sources shall not be altered to facilitate water withdrawal or disturbed in any way. If banks, shores, or beds are inadvertently disturbed, excavated, compacted, or filled, they shall be immediately stabilized to prevent erosion and sedimentation of the water source. Any disturbed areas shall be recontoured and revegetated with native vegetation.
16. Water discharge (including runoff) shall not be discharged at a rate or location resulting in sedimentation, erosion, or other disruptions causing water quality degradation.
17. Pumping operations shall be conducted in such a way as to prevent any petroleum products or hazardous substances from contaminating surface or ground water. Pumps shall not be fueled or serviced within 100 feet of a pond, lake, or stream unless the pumps are situated within a catch basin designed to contain any spills. Absorbent pads shall be readily available at the water withdrawal sites. Hazardous and non-hazardous spills must be reported to the Alaska Department of Environmental Conservation at 1-800-478-9300 per their Notification Requirements and to the Alaska Department of Natural Resources.
18. The placement of mining and pumping equipment shall not unnecessarily hinder public access, if any, to the above-described source.

19. Per 11 AAC 05.260(e), an annual administrative service fee shall be assessed on this authorization.

This Temporary Water Use Authorization is issued pursuant to 11 AAC 93.220. No water right or priority is established by a temporary water use authorization issued pursuant to 11 AAC 93.220. Water so used is subject to appropriation by others.

Pursuant to 11 AAC 93.210 (b), an authorized temporary water use authorization is subject to amendment, modification, or revocation by the Department of Natural Resources if the Department of Natural Resources determines that an amendment, modification, or revocation is necessary to supply water to lawful appropriators of record or to protect the public interest.

Any questions or concerns about this temporary water use authorization may be directed to the preparer of this authorization, Natural Resource Specialist, Jenny March at 907-451-2793 or by email at jenny.march@alaska.gov.

Approved: 

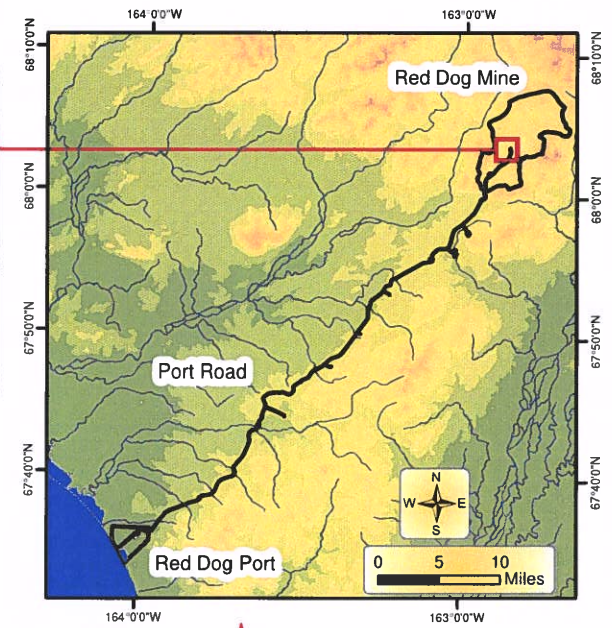
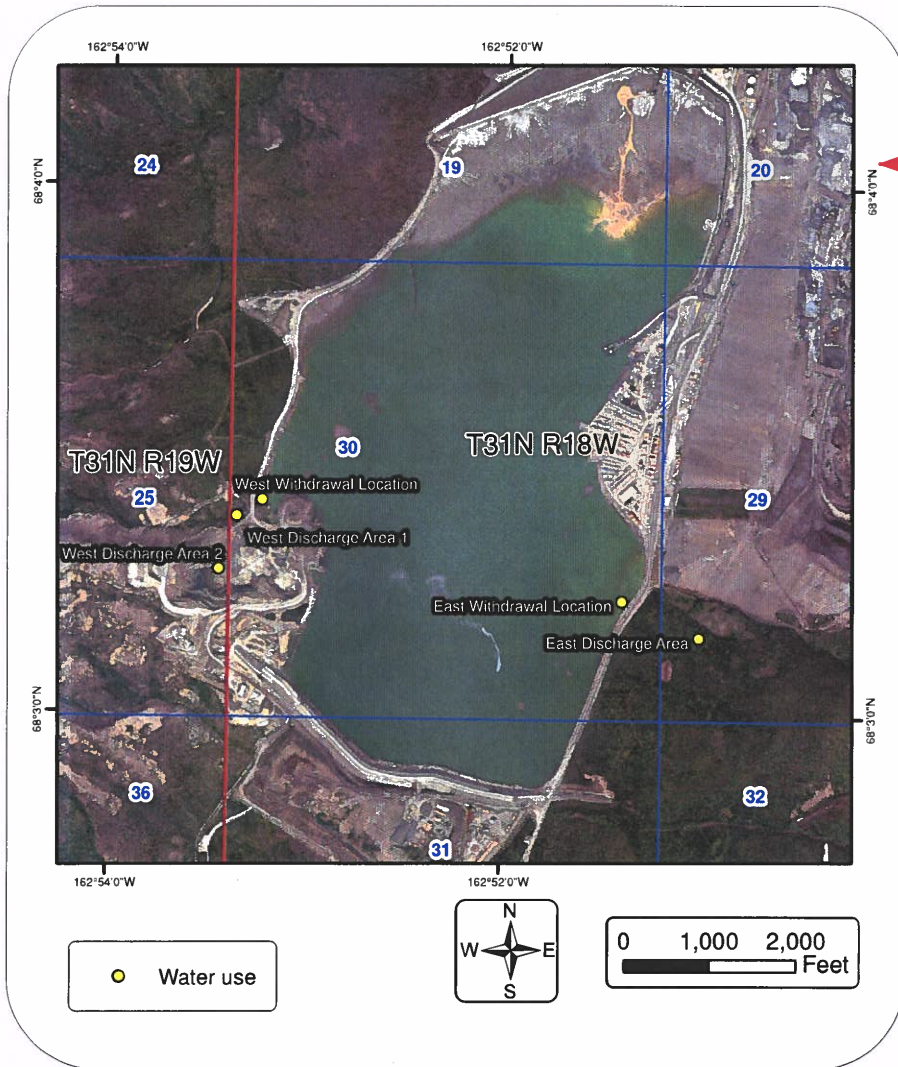
Michael Walton, Natural Resource Manager II

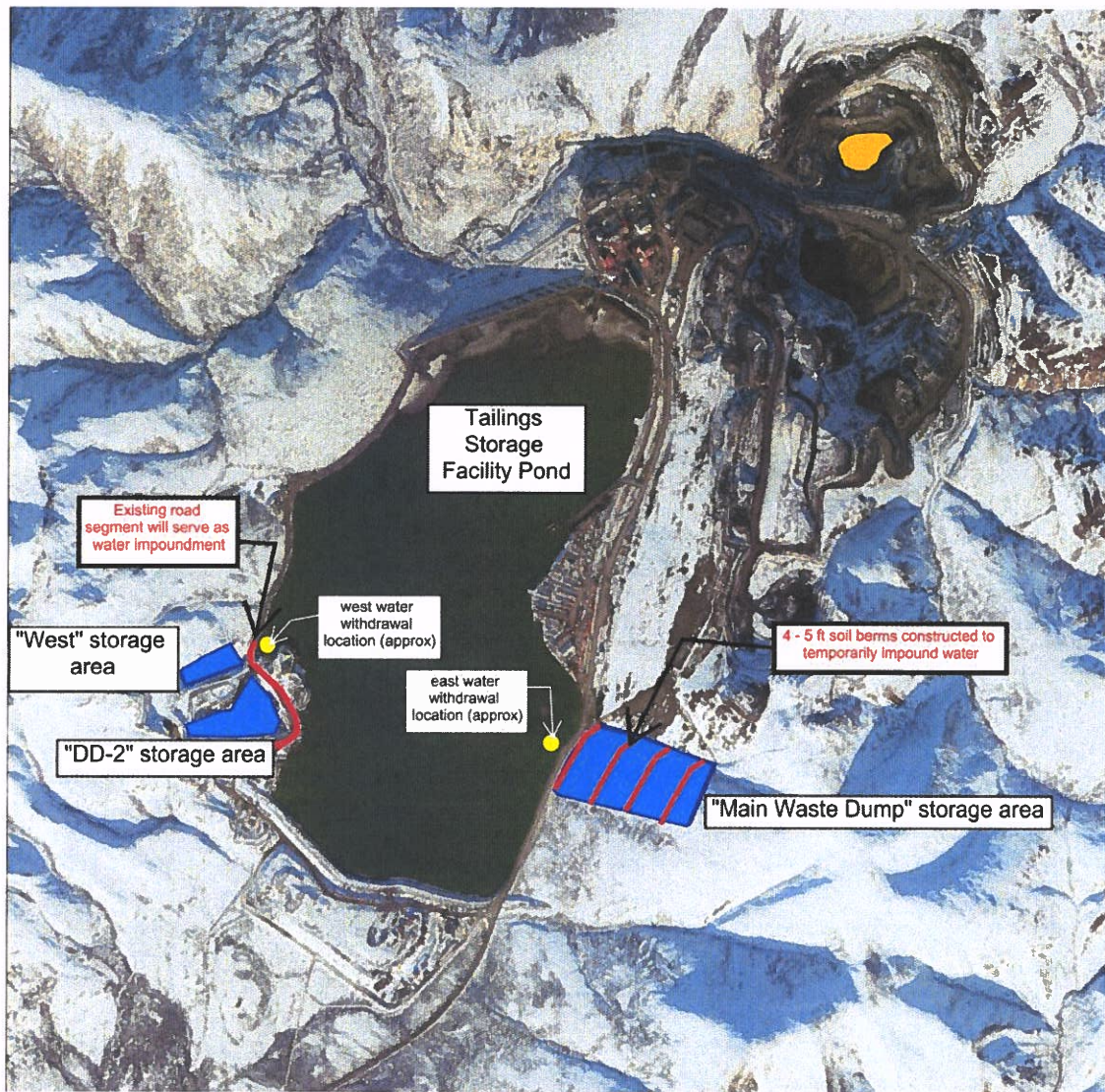
Approved: 

Tom Barrett, Natural Resource Manager III

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. This decision takes effect immediately. If no appeal is filed by the appeal deadline, this decision becomes a final administrative order and decision of the department on the 31st calendar day after 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. Under 11 AAC 02.030, appeals and requests for reconsideration filed under 11 AAC 02 must be accompanied by the fee established in 11 AAC 05.160(d)(1)(F), which has been set at \$200 under the provisions of 11 AAC 05.160 (a) and (b).

TWUA F2019-134 - Red Dog Mine Water Management Project Location Map





TWUA F2019-134 - Figure 1 Location Map – Water/Ice Storage Areas