



City and Borough of Sitka

100 Lincoln Street • Sitka, Alaska 99835

Water Rights

June 22, 2005

Dick Kearns
True Alaska Bottling Company
4500 Sawmill Creek Road
Sitka, Alaska 99835

Wendell B. Adams
ClearWater Partners, LLC
35 Watergate Drive, Suite 703
Sarasota, Florida 34236

Dear Mr. Kearns and Mr. Adams:

You have for copies of documents showing the City and Borough's water rights that allow the export of Blue Lake water. Enclosed are the following documents:

1. "Certificate of Appropriation LAS 19669—Amended (2nd)" dated October 12, 2000 (5 pages)
2. "Certificate of Appropriation ADL 43826 (Amended)" dated October 24, 2000 (4 pages)
3. "Finding and Determination pursuant to the Alaska Water Use Act[---] AS 46.15.080[---]Certificate of Appropriation of Water—ADL 43826[---]Request by City & Borough of Sitka for authorization to remove water from the hydrologic unit pursuant to AS 46.15.035" dated February 14, 2001 (8 pages)
4. "Finding pursuant to AS 46.15.035(a)(1) regarding whether water to be removed is surplus to needs within the hydrologic unit[---]Re: ADL 43826, a Certificate of Appropriation of Water held by the City & Borough of Sitka (CBS), for 34,722.5 acre-feet per year for Public Industrial Water Supply use from Blue Lake near Sitka" dated February 14, 2001 (8 pages)

Sincerely,

John C. Stein, Administrator

Enclosures: As stated



Water Rights

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER

CERTIFICATE OF APPROPRIATION LAS 19669 – AMENDED (2nd)

The State of Alaska under AS 46.15, the Alaska Water Use Act, and the Regulations adopted under it, grants to:

City & Borough of Sitka
100 Lincoln Street
Sitka, AK 99835

The right to the following uses of water:

Source:	Blue Lake	Priority Date:	October 9, 1959
Use A:	Bulk Export		
Quantity A:	14,000 acre feet/year	Period:	January 1 through December 31
	Max. Withdrawal Rate: 33.6 million gal./day or 52 cubic feet/second		
Use B:	Hydroelectric Power Generation		
Quantity B:	1,000 acre feet/year	Period:	January 1 through December 31

The location of this water source is:

Blue Lake, at hydroelectric facility intake within Lot 4, US Survey 3665, in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 35, Township 55 South, Range 64 East, Copper River Meridian.

The locations to which this water right appertains are:

Use A: Tanker mooring and loading point in Silver Bay within Alaska Tidelands Survey No. 709, Section 3, Township 56 South, Range 64 East, Copper River Meridian.

and

Use B: City & Borough of Sitka hydroelectric power house on Parcel C, US Survey 3551 and Parcel A, US Survey 3665, SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 34, Township 55 South, Range 64 East, and NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 3, Township 56 South, Range 64 East, Copper River Meridian.

Changes in the natural state of water are to be made in the manner and only for the purposes stated in this certificate. This Certificate is subject to the pertinent statutory provisions in AS 46.15, Administrative Regulations in 11 AAC 93, and to the following reservation of water and the following conditions:

Pursuant to AS 46.15.035 the following Reservation of Water, as established in the Permit to Appropriate Water LAS 19669 signed 3 September 1996, is incorporated herein:

Water is reserved as follows:

Sawmill Creek; with a priority date of 1 July 1992:

<u>Instream Flow Rate</u>		<u>Months</u>
(w. reservoir above rule curve levels)	(w. reservoir below rule curve levels)	
50 cfs	22 cfs	Jan - Apr
50 cfs	50 cfs	May - Nov
50 cfs	37 cfs	Dec

Purpose of Reservation: to support the spawning, incubation, and rearing of salmon, steelhead trout, rainbow trout, and dolly varden trout.

The location to which the Sawmill Creek portion of this reservation of water appertains is:

The streamflow within Sawmill Creek near Sitka and its floodplain from river mile 0.0, also known as the mouth of Sawmill Creek as it enters tidewater at the extreme low tidal stage of Silver Bay, upstream to the discharge point of the Fish Valve Unit at approximately 1600 feet downstream from the Blue Lake dam. Said portion of Sawmill Creek is located within Sections 34 and 35, Township 55 South, Range 64 East, Copper River Meridian, and Section 3, Township 56 South, Range 64 East, Copper River Meridian, Sitka Recording District.

and

Blue Lake Reservoir, with a priority date of 1 July 1992:

Months Beginning of month reservoir elevations, in feet above MSL

Mar	285
Apr	255
May	252
Jun	265
Jul	294
August thru February	295

Purpose of Reservation: to support all life stages of rainbow trout.

The location to which the Blue Lake reservoir portion of this reservation of water appertains is:

The reservoir waters within Blue Lake Reservoir at elevation 342 feet MSL and below, as defined in the reservoir elevation schedule, above. Said portion of Blue Lake Reservoir is located within Sections 25, 26 and 35, Township 55 South, Range 64 East, and Sections 19, 20, 29 and 30, Township 55 South, Range 65 East, Copper River Meridian, Sitka Recording District.

The Certificate holder shall follow all applicable statutes, regulations, and plan requirements of the Alaska Coastal Management Program (ACMP). This Certificate is subject to ACMP Consistency Determination AK9607-01J dated 27 August 1996 and to the applicable stipulations therein.

Other conditions that apply to this appropriation are found in attachment A, attached hereto and made a part hereof.

The water right granted is conditioned upon the existence of possessory interest by the grantee in the locations to which this water right appertains, as described above, and upon the existence of a legal right of access to the water source described above and to the route of water transmission to its places of use.

Pursuant to AS 46.15.160 and applicable regulations the certificate holder shall notify the Alaska Division of Mining, Land & Water upon change of address or transfer of any real property related thereto.

ATTACHMENT A

The holder of this Certificate shall:

Follow acceptable engineering standards in exercising the water right granted by this certificate.

Defend and indemnify the state against and hold it harmless from any and all claims, demands, legal actions, loss, liability and expense for injury to or death of persons and damages to or loss of property arising out of or connected with the exercise of the water right granted by this certificate.

Comply with all applicable laws, regulations and conditions.

Notify the Division of Mining, Land & Water, Department of Natural Resources, of any change of address of the grantee or transfer of real property identified in this document.

(Uses A & B) Establish a water use metering and recording system acceptable to the Division, and submit daily water use records to the Division monthly. The records must separately identify each water use.

Establish a Blue Lake reservoir water level measuring and recording system acceptable to the Division, and submit daily water level records to the Division monthly.

Maintain and operate a stream discharge measuring site acceptable to the Division, and submit stream discharge records to the Division monthly.

Per 11 AAC 05.010(a)(8)(M), an Annual Administrative Service Fee shall be assessed on this appropriation of water.

In accordance with AS 46.15.035(a)(3) and 11 AAC 05.010(a)(8)(P), a Water Conservation Fee shall be assessed on the total quantity of water appropriated and removed per year (not to exceed 14,000 acre-feet per year under this certificate) from the Hydrologic Unit (Hydrologic Unit Code 1901), beginning with the first calendar year in which a significant amount of water, as defined in 11 AAC 93.970(14), is appropriated and removed.

No use of water authorized by this Certificate is allowed when water elevation levels of the Blue Lake reservoir are at or below the levels established in the Reservation for Water for Fish pursuant to AS 46.15.035(c) and contained herein, notwithstanding the junior priority date of the reservation with respect to that of this appropriation.

GRANTOR: STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER
400 WILLOUGHBY AVENUE, 4th FLOOR
JUNEAU, ALASKA 99801

State of Alaska



DKS
BOOK 0144 PAGE 732

Water Rights

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER

CERTIFICATE OF APPROPRIATION ADL 43826 (AMENDED)

The State of Alaska under AS 46.15, the Alaska Water Use Act, and the regulations adopted under it, pursuant to the determination under AS 46.15.160 and 11 AAC 93.930 dated 7 September 1999, and having issued a Temporary Permit to appropriate water thereunder for a period of one year to effect a transfer and change grants to:

City & Borough of Sitka
100 Lincoln Street
Sitka, AK 99835

The right to the following use of water

SOURCE:	Blue Lake	PRIORITY DATE:	October 9, 1959
QUANTITY:	34,722.5 acre feet per year	MAX. DIVERSION RATE:	31 MGD
USE:	Public Industrial Water Supply	PERIOD:	Jan. 1 through Dec. 31

The location of this water source is:

Blue Lake, at the hydroelectric facility penstock intake, within Lot 4, US Survey 3665 NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 35, Township 55 South, Range 64 East, Copper River Meridian.

The location to which this water right appertains is:

The Sitka Public Industrial Water Supply area in Lot 1 of USS 3665, USS 3551, and USS 2797, within Sections 33 & 34, T55S, R64E, CRM and Sections 3 & 4, T56S, R64E, CRM.

CERTIFICATE OF APPROPRIATION
ADL 43826

The conditions that apply to this appropriation are found in attachment A, attached hereto and made a part hereof.

The water right is granted subject to the pertinent statutory provisions in AS 46.15, and Administrative Regulations in 11 AAC 93.

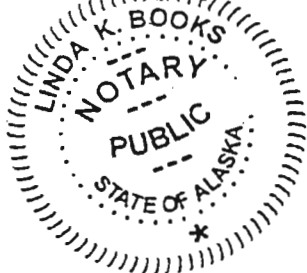
This Certificate of Appropriation is issued by authority of AS 46.15.120 and 11 AAC 93.130 on October 24, 2000.

APPROVED: Darryl Prokosh

TITLE: Chief, Water Resources Section
DIVISION OF MINING, LAND & WATER

STATE OF ALASKA)
) ss.
3rd JUDICIAL DISTRICT)

This is to certify that on October 24, 2000 before me appeared Darryl Prokosh, known by me to be the director or authorized representative of the Division of Mining, Land & Water, Department of Natural Resources, and acknowledged to me that this Certificate of Appropriation was voluntarily executed on behalf of the State of Alaska.



Linda K. Book
Notary Public in and for the State of Alaska

My Commission Expires: Nov 1, 2000

Pursuant to AS 46.15.160 and applicable regulations the certificate holder shall notify the Alaska Division of Mining, Land & Water upon change of address or transfer of any real property related thereto.

THIS AMENDED CERTIFICATE SUPERCEDES THE CERTIFICATE SIGNED ON 28 SEPTEMBER 1970, RECORDED CONCURRENTLY HERewith.

CERTIFICATE OF APPROPRIATION
ADL 43826

ATTACHMENT A - Conditions:

CHANGES IN THE NATURAL STATE OF WATER ARE TO BE MADE IN THE MANNER AND ONLY FOR THE PURPOSES STATED IN THIS CERTIFICATE. THIS CERTIFICATE IS SUBJECT TO THE PERTINENT STATUTORY PROVISIONS IN AS 46.15, ADMINISTRATIVE REGULATIONS IN 11 AAC 93, AND THE FOLLOWING CONDITIONS:

THE HOLDER OF THIS CERTIFICATE SHALL:

FOLLOW ACCEPTABLE ENGINEERING STANDARDS IN EXERCISING THE PRIVILEGE GRANTED BY THIS CERTIFICATE.

DEFEND AND INDEMNIFY THE STATE AGAINST AND HOLD IT HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, LEGAL ACTIONS, LOSS, LIABILITY AND EXPENSE FOR INJURY TO OR DEATH OF PERSONS AND DAMAGES TO OR LOSS OF PROPERTY ARISING OUT OF OR CONNECTED WITH THE EXERCISE OF THE PRIVILEGE GRANTED BY THIS CERTIFICATE.

COMPLY WITH ALL APPLICABLE LAWS, REGULATIONS AND CONDITIONS.

NOTIFY THE DIVISION OF MINING, LAND & WATER, DEPARTMENT OF NATURAL RESOURCES OF ANY CHANGE OF ADDRESS OF THE GRANTEE OR TRANSFER OF ANY REAL PROPERTY IDENTIFIED IN THIS DOCUMENT.

WATER MAY NOT BE WITHDRAWN WHEN FLOW IN SAWMILL CREEK AT THE DISCHARGE POINT OF THE FISH VALVE UNIT IS LESS THAN THE VALUES IN THE FOLLOWING INSTREAM FLOW SCHEDULE:

<u>Instream Flow Rate</u>		<u>Months</u>
(w. reservoir above rule curve levels)	(w. reservoir below rule curve levels)	
50 cfs	22 cfs	Jan-Apr
50 cfs	50 cfs	May-Nov
50 cfs	37 cfs	Dec

**CERTIFICATE OF APPROPRIATION
ADL 43826**

WATER MAY NOT BE WITHDRAWN WHEN BLUE LAKE RESERVOIR ELEVATIONS ARE LOWER THAN THE ELEVATIONS IN THE FOLLOWING "RULE CURVE" SCHEDULE:

<u>Months</u>	<u>Beginning of month reservoir elevations, in feet above MSL</u>
Mar	285
Apr	255
May	252
Jun	265
Jul	294
Aug – Feb	295

THE WATER RIGHT HOLDER SHALL ESTABLISH AND MAINTAIN A WATER USE METERING AND RECORDING SYSTEM ACCEPTABLE TO THE DIVISION, AND SUBMIT DAILY WATER USE RECORDS TO THE DIVISION MONTHLY.

THE WATER RIGHT HOLDER SHALL ESTABLISH AND MAINTAIN A BLUE LAKE WATER LEVEL MEASURING AND RECORDING SYSTEM ACCEPTABLE TO THE DIVISION, AND SUBMIT DAILY WATER LEVEL RECORDS TO THE DIVISION MONTHLY.

THE WATER RIGHT HOLDER SHALL ESTABLISH AND MAINTAIN A STREAM DISCHARGE MEASURING SITE ACCEPTABLE TO THE DIVISION, AND SUBMIT STREAM DISCHARGE RECORDS TO THE DIVISION MONTHLY.

PER 11 AAC 05.010(a)(8)(M), AN ANNUAL ADMINISTRATIVE SERVICE FEE SHALL BE ASSESSED ON THIS APPROPRIATION OF WATER.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
Water Resources Section
Southeast Regional Office

Finding and Determination
pursuant to the Alaska Water Use Act
AS 46.15.080

Certificate of Appropriation of Water – ADL 43826
Request by City & Borough of Sitka
for authorization to remove water from the hydrologic unit
pursuant to AS 46.15.035

Water Rights of record

See attached table, Blue L. watershed water allocations

AS 46.15.080. Criteria for issuance of permit.

[The text of the statute is in bold type; discussion is in regular type.]

Note that the administrative context for which AS 46.15.080 was enacted is adjudication of a water right application in consideration of issuance of a Permit to appropriate. However, AS 46.15.035, Appropriation of Water Out of Hydrologic Units, etc. requires under subsection (a)(2), in relevant part, that "the commissioner finds that the application for removal ... meets the requirements of AS 46.15.080;". The extant administrative context is a request for authorization to remove water that has already been appropriated to the City & Borough of Sitka (CBS) for public industrial water supply.

**(a) The Commissioner shall issue a permit if the commissioner finds that
(1) rights of a prior appropriator will not be unduly affected;**

The Permit to appropriate Water (ADL 43826) has already been issued for this water right, pursuant to AS 46.15.160 and 11 AAC 93.930, to effect the transfer of Alaska Pulp Corporation's remaining pulp mill water right to CBS and to change the use to Public Industrial Water Supply. ADNR's Determination of 8 September 1999 is attached

for reference. After the one-year term of the permit a Certificate of Appropriation was issued.

There is one prior appropriation, ADL 51543 for hydroelectric and public water supply use; and one appropriation of the same date, LAS 19669 for bulk export and hydroelectric use. Neither can be unduly affected because there is normally enough water for these appropriations and the appropriation that includes the water to be removed. ADL 51543 cannot be unduly affected because it is also protected by its senior appropriation date. All of these water rights are held by CBS, which is unlikely to intend an undue effect on itself as holder of the prior appropriations.

(2) the proposed means of diversion or construction are adequate;

The means of diversion have been in use for over 40 years and are demonstrated to have served appropriations of water totaling more than the current total of appropriations. As operator of Sitka's public water supply, CBS has demonstrated its ability to distribute and deliver water in substantial amounts. ADNR does not require documentation of adequacy of end-use construction for water uses furnished by a public water supply or public industrial water supply.

(3) the proposed use of water is beneficial;

Public and industrial uses of water are cited as examples in the statute's definition of "beneficial use" (AS 46.15.260(3)). The legislature presumably intended export of water to be considered a beneficial use when it enacted AS 46.15.035.

(4) the proposed appropriation is in the public interest.

[The extant administrative task does not involve a "proposed appropriation", in that the water has already been appropriated for public industrial water supply. It can be considered a "proposed appropriation" in the sense that although it is a vested water right water has not yet been put to beneficial use under the right.]

(b) In determining the public interest, the commissioner shall consider
(1) the benefit to the applicant resulting from the proposed
appropriation;

CBS has requested this authorization to remove water because it intends to create or enable the creation of jobs and income that the pulp mill once provided, using the land and water resources once committed to the pulp mill. CBS intends to provide some of

this water for a bottling operation, and has leased some of its industrial site land to a bottling company for this purpose. CBS also wishes to have water authorized for removal so that it can attract other developments that would export the water, including bulk export. ADNR does not have the capability of quantitatively analyzing the net benefits accruable to CBS from the proposed removal of water. There is no evidence in the record that CBS has requested this authorization other than in its own interest and voluntarily, or that the benefits to CBS would be negative.

(2) the effect of the economic activity resulting from the proposed appropriation;

CBS intends the requested removal of water to facilitate job creation and income to the community. ADNR does not have authority over end uses furnished by a public water supply, and lacks the capability to quantitatively analyze economic effects of a water use. There is no evidence in the record indicating that the effect of the economic activity from the proposed removal of water would be negative.

(3) the effect on fish and game resources and on public recreational opportunities;

ADNR interprets the requirement for this consideration to be correctly directed only to those effects uniquely attributable to the water's removal from the hydrologic unit, since the water is included in an appropriation that has already been made. CBS could legally now withdraw from the Blue Lake reservoir and use up to 31 MGD for its public industrial water supply, as long as it was not removed from the hydrologic unit. Removing part of that water from the hydrologic unit does not affect the total amount withdrawable at any time, and places no additional demand on aquatic resources in the reservoir or in Sawmill Creek.

Commentors provided no evidence concerning effects uniquely attributable to the water's removal from the hydrologic unit. Instead, their comments appeared to stem from misperceptions that the requested removal from the hydrologic unit represented increased removals from the Blue Lake watershed or that the requested removal created a legal opportunity to reallocate water to fish habitat use.

ADNR has hypothesized three effects on fish and wildlife resources that could be considered as uniquely attributable to the water's removal from the hydrologic unit; these are discussed as follows:

- (1) change in dilution effects in marine waters;

(2) change in instantaneous withdrawal rates from the reservoir during bulk water loading; and

(3) ballast water quality problems in marine waters.

(1) Water withdrawn from the reservoir and used near the mouth of Sawmill Creek, such as the existing hydroelectric use, proposed hatchery use, etc., returns to Sawmill Creek, which then flows into Silver Bay, or would flow directly into Silver Bay. Water removed from the hydrologic unit, however, does not have a local return flow and thus would have an effect of decreasing the dilution of marine waters by the fresh water of the Blue Lake watershed. In 1996 ADNR made a superficial analysis of this effect for a comparable amount of water to be removed and concluded from the relative volumes of water that there would be no perceptible effect on salinity in Silver Bay. The same could be assumed for other water quality parameters. There is no evidence in the record suggesting that perceptible effects of this type may be expected from removal of this water.

(2) Since bulk loading of water into tankers could not be continuous, reservoir withdrawals would occur under instantaneous flow rates greater than their long-term average withdrawal rates, possibly affecting fish habitat in the reservoir. Reservoir drawdown rates attributable to a somewhat larger withdrawal were estimated in 1996 and found to be negligible. Cumulative withdrawal rates based on assumptions of simultaneous loading of more than one tanker have not been estimated, although the drawdown effects would still be less than the effects attributable to hydroelectric operation and within the combined effects of the total former appropriations during pulp mill operation. Cumulative effects estimated by adding withdrawals may be overstated because of penstock roughness limitations on flow. This effect is expected to be negligible.

(3) Ballast water quality problems have not been analyzed. They are presumed to be similar to ballast water problems experienced as a result of any large ship approaching Silver Bay to load cargo, such as log or lumber ships, and are presumed to be regulated similarly. Regulation of this possible effect is not within ADNR's authority under the Water Use Act.

(4) the effect on public health;

There is no evidence in the record indicating a possible adverse effect upon public health from the proposed removal of water, and no reason to expect an adverse effect. The CBS indicates that it has no plans to request additional allocations of water for public water supply.

(5) the effect of loss of alternate uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation;

CBS's request for authorization to remove water from the hydrologic unit is a portion of their planned usage of the water to which they hold rights under ADL 43826, for development of the former pulp mill site. CBS has also reviewed all relevant plan documents, in response to ADNR's request for information on which to base a finding of surplus pursuant to AS 46.15.035(a)(1), and has found no expressed need for the water for other purposes.

Commentors expressed a need to allocate additional water from the Blue Lake watershed to instream flows for protection of aquatic habitat. The evidence presented or referred to in support of this is ADF&G's application for an Instream Flow Reservation (LAS 11995) for Sawmill Creek and the methodology upon which its requested flow amounts are based. Commentors referred to the need to increase instream flows to maintain fish productivity. However, the flow amounts applied for in LAS 11995 are based on the hydrologic regime existing prior to the dam and reservoir's construction and the development of the diversionary water uses the dam was intended to supply, in the late 50s and early 60s. They are thus the flow amounts theoretically necessary to restore presumed pre-project fish productivity. These flow amounts are not deliverable under present conditions of the water use infrastructure and its attendant prior water rights. AS 46.15.035(c) does not require the reservation of flows in amounts necessary to restore a fishery to presumed previously existing levels. The amounts that are now required to maintain fish productivity in Sawmill Creek and the reservoir are established in FERC license conditions, ACMP stipulations, water right conditions, and reservations for fish, and are achievable under current infrastructure and water right conditions.

The extant administrative action does not present an opportunity to reallocate water rights. ADNR may not grant ADF&G the flow amounts requested because the water is apparently fully appropriated or nearly so. ADNR proposes to establish a reservation for fish, as required by AS 46.15.035(c), equivalent to conditions, stipulations, and reservations currently in effect under other authorizations (see below, under Conclusions).

The only other "alternate use of water" of which there is evidence in the record is the possible use of additional Blue Lake water for hydroelectric generation, if the dam is raised. This would allow more energy to be generated from the same amount of water, but could entail some increase in use of water also. CBS as the holder of water rights for hydroelectric as well as for public industrial water supply has some opportunity to

consider their optimum mix. This decision will also be part of the FERC relicensing review that will soon commence. The requested ADNR authorization for removal of water does not in itself further limit CBS's options in this regard. (See ADNR's Finding of Surplus prepared in conjunction with this finding, of the same date.)

The requested authorization would not reduce the opportunity to allocate water to instream or hydroelectric uses in the future, should water be transferred from existing water rights or become available and unappropriated through abandonment or forfeiture.

(6) harm to other persons resulting from the proposed appropriation;

There is no evidence in the record indicating harm to other persons from the requested authorization.

(7) the intent and ability of the applicant to complete the appropriation;

The CBS has documented its intent to redevelop the former APC pulp mill site and to furnish water to it to allow its tenants to operate. CBS has demonstrated its ability to operate its public water system and its hydroelectric generating system.

(8) the effect upon access to navigable or public water.

The requested authorization will not adversely affect access to navigable or public water. The requested authorization will not alter the major infrastructure that delivers Blue Lake water to the former mill site. Nothing in the requested authorization affects the current status of Blue Lake as the primary source for CBS's public water system, and will not change public access to the lake.

CONCLUSION

ADNR finds that the requested authorization to remove water from the hydrologic unit, consisting of water already appropriated to CBS for public industrial water supply, will not unduly affect rights of prior appropriators, authorizes use under adequate means of diversion or construction, authorizes beneficial use, and is reconfirmed to be in the public interest pursuant to AS 46.15.080, as required by AS 45.15.035(a)(2).

It is the decision of ADNR to issue a Certificate of Reservation, as required by

AS 46.15.035(c), under file number LAS 20526, with a priority date of 1 July 1992, and hereby to withdraw water from appropriation as follows:

Sawmill Creek:

<u>Instream Flow Rate</u>		<u>Months</u>
(w. reservoir above rule curve)	(w. reservoir below rule curve)	
50 cfs	22 cfs	Jan - Apr
50 cfs	50 cfs	May - Nov
50 cfs	37 cfs	Dec

to support the spawning, incubation, and rearing of salmon, steelhead trout, rainbow trout, and dolly varden trout.

The location to which the Sawmill Creek portion of this reservation of water appertains is:

The streamflow within Sawmill Creek near Sitka and its floodplain from river mile 0.0, also known as the mouth of Sawmill Creek as it enters tidewater at the extreme low tidal stage of Silver Bay, upstream to the discharge point of the Fish Valve Unit at a point approximately 1600 feet downstream from the Blue Lake dam. Said portion of Sawmill Creek is located within Sections 34 and 35, Township 55 South, Range 64 East, Copper River Meridian, and Section 3, Township 56 South, Range 64 East, Copper River Meridian, Sitka Recording District.

and

Blue Lake Reservoir:

<u>Months</u>	<u>Beginning of month reservoir elevations, in feet above MSL</u>
Mar	285
Apr	255
May	252
Jun	265
Jul	294
Aug - Feb	295

to support all life stages of rainbow trout.

The location to which the Blue Lake reservoir portion of this reservation of water appertains is:

ADL 43828 .080 Finding

02/14/01

The reservoir waters within Blue Lake Reservoir at elevation 342 feet MSL and below, as defined in the reservoir elevation schedule, above. Said portion of Blue Lake Reservoir is located within Sections 25, 26 and 35, Township 55 South, Range 64 East, and Sections 19, 20, 29 and 30, Township 55 South, Range 65 East, Copper River Meridian, Sitka Recording District.

A Certificate of Reservation shall be issued to separately document this reservation.

A "Finding of Surplus" has been made, as of this date (see attached Finding pursuant to AS 46.15.035(a)(1) regarding whether water to be removed is surplus to needs within the hydrologic unit, dated 14 February 2001).

Having found that the requested authorization meets the requirements of AS 46.15.080 as required by AS 46.15.035(2), having reserved water for the use of fish and to maintain habitat for fish as prescribed by AS 46.15.035(c), and having found that the water to be removed is surplus to needs within the hydrologic unit as required by AS 46.15.035 (a)(1), ADNR hereby authorizes the removal by the City & Borough of Sitka of up to 13.8 MGD of the water appropriated under Certificate of Appropriation of Water ADL 43826 from Hydrologic Subregion 1901, subject to the terms and conditions of said Certificate, and subject to the reservation for fish herein made, notwithstanding the senior priority date of said reservation.



John Dunker, Water Resource Officer, Water Resources Section 14 Feb. '01
(Date)



Gary J. Prokosch, Chief, Water Resources Section 2/14/01
(Date)

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER

Finding

pursuant to AS 46.15.035 (a)(1)
regarding whether water to be removed
is surplus to needs within the hydrologic unit

Re: ADL 43826, a Certificate of Appropriation of Water held by the City & Borough of Sitka (CBS), for 34,722.5 acre-feet per year for Public Industrial Water Supply use from Blue Lake near Sitka

Background:

AS 46.15.035(a) states in relevant part, "Water may not be removed from the hydrologic unit from which it was appropriated ..., unless the commissioner (1) finds that the water to be removed ... is surplus to needs within the hydrologic unit from which the water is to be removed ..., including fishing, mining, timber, oil and gas, agriculture, domestic water supply, and other needs as determined by the commissioner;"

AS 46.15.035(e)(2) states, "hydrologic unit" means a hydrologic subregion established by the United States Department of the Interior, Geological Survey, on the "Hydrologic Unit Map-1987, State of Alaska." The hydrologic subregion within which Blue Lake lies is USGS' Hydrologic Unit Code 1906, and includes all of Southeast Alaska from Point Riou on Icy Bay, southeastward.

CBS has requested authorization under AS 46.15.035 to remove from the hydrologic unit up to 13.6 million gallons per day (MGD) of their public industrial water supply water right under ADL 43826. ADL 43826 is a water right for 34,722.5 acre-feet per year (equivalent to approximately 31 MGD, or 48 cubic feet per second (cfs)) subject to a maximum withdrawal rate of 31 MGD.

Public Notice of the proposed authorization for removal has been published in accordance with AS 46.15.133; the notice included a general description of the special requirement that the water be found to be surplus to needs within the hydrologic unit, and requested comments that might assist the Division in this finding. The Public Notice was published in both the Sitka local daily paper, the Sentinel, and in the regional daily paper, the Juneau Empire. The Public Notice was posted to the state's public notice website. The Public Notice was sent as an Agency Notice to the Alaska Department of Fish and Game (ADF&G) and to the Alaska Department of Environmental Conservation (ADEC).

Written comments in response to the Public Notice have been received from ADF&G timely, and from National Marine Fisheries Service (NMFS) and Sitka Conservation Society (SCS) not timely. Relevant NMFS and SCS comments will be considered under the commissioner's discretionary authority to consider pursuant to 11 AAC 93.090(c). Relevant comments will be addressed in the Discussion, below.

Discussion:

The statute would appear to require the commissioner to find that the water to be removed is not required for various purposes anywhere within the hydrologic unit, i.e., Southeast Alaska. However, it is not reasonable to ignore practical and economic limits upon the transport of water, in a determination that the water is surplus. If a potential use of water from Blue Lake would be prevented from being made in another part of the hydrologic unit because of prohibitive transportation costs or physical limitations, it would not be reasonable to prohibit the export of that water by declaring it to be not surplus to the needs of the hydrologic unit. The link between a water need within the hydrologic unit and the water to be removed should be practicable, and there should be a reasonable proportionality between the need for the water within the hydrologic unit and the economic benefits of removing it. Reasonable proportionality might be partially determined by economic analysis, and tempered by local, regional, or state political decisions such as public contingency preparation for water shortages, or public subsidies of certain water uses in water shortage areas. However, if no practicable link is evident, there is little need to inquire further into whether reasonable proportionality exists.

To assist in this finding, ADNR requested the following information from the CBS:

- a report of a survey of plan documents for the region and localities within the hydrologic unit, listing the plans surveyed and any references they contain to water needs that might be provided from the proposed source. Plans surveyed should include regional and local land management and economic development plans, coastal district plans, State Land Area Plans, power demand and supply plans, regional hatchery development plans, and watershed plans.
- a report of a mail and/or phone canvass of the producers of the above plans and of agencies and entities with responsibilities for land or resource management, power supply, economic development, watershed management, or hatchery program coordination in the hydrologic unit, said canvass to disclose whether any plans have been overlooked or whether additional relevant information is available from the agencies or entities contacted.

CBS submitted a letter report summarizing the information found in response to ADNR's request (Randy Cornelius to John Dunker, 19 January 2001; attached). An additional letter followed, clarifying that the documents reviewed by CBS were

the latest versions (Marlene Campbell to John Dunker, 6 February 2001; attached). The documents CBS reviewed included all of the available plans and reports that might reasonably be expected to contain official public expressions of a need for water for the various purposes listed in the statute as requiring consideration, for the Sitka area.

Comments received

ADF&G commented on a broad range of matters connected to the water use and instream flow protection history of the Blue Lake watershed. Comments imply that the Blue Lake water requested for removal is not surplus to needs within the hydrologic region because it is needed for instream flow in Sawmill Creek and for maintenance of reservoir levels in Blue Lake. ADF&G reiterates requests for fish habitat /hydrology/reservoir operation studies, and states that without these studies it is premature and not possible to determine that the water is surplus. No other water needs within the hydrologic region are identified. ADNR believes that ADF&G misconstrues CBS's request for authorization to remove water as an opportunity to reallocate appropriated water to instream use. These comments, as they pertain to this finding of surplus, are addressed below, under Instream flow water use. (Also, refer to ADNR's memo of 14 February 2001 responding to ADF&G's comments.)

NMFS commented on the water use and instream flow protection history of the Blue Lake watershed. NMFS misperceives CBS's request for authorization to remove water as an opportunity to reallocate water to instream use. NMFS apparently misconstrues the requested removal as requiring an amendment of CBS's existing water right, and believes it would increase impacts on aquatic habitat. NMFS recommends further studies of fish habitat and water needs and asks ADNR to act on ADF&G's IFR application for Sawmill Creek. NMFS expresses concern regarding the difficulty of adjusting water appropriations to address impacts, especially if contracts for export are made. No other water needs within the hydrologic unit are identified. These comments, as they pertain to this finding of surplus, are addressed below under Instream flow water use.

The Sitka Conservation Society (SCS) commented, supporting ADF&G's requests for documentation that the water to be removed is surplus, requesting action on ADF&G's IFR application, and supporting ADF&G's request for an assessment of existing and future water needs. SCS implies that the water to be removed is not surplus because it may be needed for instream flow. Several policy recommendations are made for implementing the precautionary principle, pointing out the difficulties of predicting long-term aquatic ecosystem impacts and the dangers of creating permanent commitments of water. No other water needs within the hydrologic unit are identified. These comments, as they pertain to this finding of surplus, are addressed below under Instream flow water use.

Hydroelectric water use

The only potential water need identified for Blue Lake water that may not be already adequately provided for in existing water allocations (other than the need expressed in ADF&G's application for an Instream Flow Reservation) is possible future increased hydroelectric utilization of Blue Lake watershed flows by means of increasing the height of the Blue Lake dam. CBS summarized the findings of two recent studies addressing this and other CBS energy options, and sent copies for ADNR's review (R.W. Beck, 1996, Evaluation of Hydroelectric Generating Options; R.W. Beck, 1997, Electric Resource Evaluation and Strategic Plan, 1997 Update). Raising the dam is under consideration because it would create greater head, allowing more energy to be taken from the same amount of water. It would likely also allow increased watershed utilization because the greater reservoir storage volume could be used to capture water that is now periodically lost over the spillway when inflows to the reservoir exceed water withdrawals under full reservoir conditions. Little additional instantaneous water demand is likely to occur, because the rough surface of the penstock tunnel would limit resulting flow rates to near present rates.

It appears from the R.W. Beck studies reviewed that the costs and benefits of raising the dam were calculated using assumptions of reservoir water withdrawals including the main hydroelectric plant, the fish valve releases, and the original public water supply, but apparently not including withdrawals for bulk export or public industrial water supply. If these latter water uses materialize, the studies' estimates of estimated additional energy from a dam raise might have to be adjusted downward. However, to the extent that these uses are delivered through the mill valve, the mill valve hydroelectric unit could capture some of that energy, although probably not at the efficiency realizable in the main powerhouse.

From the water right standpoint, increased annual water usage would probably occur (more acre-feet per year) and perhaps a small increase in instantaneous flow (higher maximum diversion rate in cfs). This would represent a new appropriation with a priority date junior to existing water rights, unless CBJ applied for a change of water right from bulk export or public industrial use to hydro use. From ADNR's records, it appears that CBS has approximately 29.9 MGD of its public industrial water supply water right now unused and unencumbered by current obligations, although much of this is intended for future industrial developments.

From the water balance standpoint, unless CBS decided to reallocate water from these other water rights to hydro, the new appropriation would have to be recoverable from increased watershed utilization and/or available from currently unappropriated and unapplied-for water. In either case a new appropriation would require that a new water balance analysis showed sufficient water

available. In this sense, then, the water requested for removal would not be needed for the possible increased water use from raising the dam, and is therefore surplus to hydroelectric needs.

From the standpoint of this finding of surplus, CBS's requested removal authorization of 13.6 MGD, which includes 1.1 MGD for export bottling, if actually exported would leave 17.4 MGD for other uses under CBS's public industrial water supply water right. Of this, 6.4 MGD has been tentatively identified for supplying a future fish hatchery; this would leave 11.0 MGD available for other industrial uses or for reallocation to hydro use. (Note: Since water for a future fish hatchery would be furnished from the existing public industrial water supply water right, it is considered to be a water use that is already provided for.)

Instream flow water use

[Note: Instream flows in Sawmill Creek and reservoir levels in Blue Lake are required in existing allocations of water through a combination of FERC license conditions, water right conditions, ACMP stipulations, and reservations under AS 46.15.035. They have been made consistent for all water rights and uses except for the 8.6 MGD original public water supply right held by CBS under ADL 51543.]

A need has been expressed in comments, variously but to the effect that the existing reservoir level requirements either would not be sufficient to protect rainbow trout habitat against increased withdrawals, or may not now be sufficient to protect them under existing conditions. The relevance for this finding is the implication that water needed to maintain or improve these reservoir requirements cannot be found to be surplus to needs within the hydrologic unit. However, since the water proposed to be removed is already appropriated for public industrial water supply under ADL 43826, its use is conditioned upon adherence to the established reservoir level requirements. That is, the water to be removed may not be removed when reservoir levels are less than the required levels. Therefore, even when this requested removal of water is viewed as an increased demand on the reservoir, it cannot violate existing reservoir requirements; nor can it cumulatively contribute to violation of existing requirements by other water withdrawals, since they are also conditioned upon the same reservoir level requirements (with the 8.6 MGD exception noted above). To the assertion that the existing requirements are not protective enough of trout habitat, ADNR does not have an opinion, but points out that these requirements were worked out when total water allocations exceeded today's, including the water to be removed. Commentors have characterized their agreement to these requirements as having been reluctant, reached in compromise with the water needs of the pulp mill (50 MGD water right) in recognition of its economic importance. However, this water, in somewhat reduced amount, is now appropriated by CBS for economic development to

replace the pulp mill. In any case, the water requested for removal is not available for appropriation to maintaining or improving reservoir levels, since it is already appropriated. Therefore it cannot be held to not be surplus to the hydrologic unit.

The other need (expressed in the record) for water from Blue Lake that is not provided for by existing water allocations is ADF&G's 1988 application (LAS 11995) for an Instream Flow Reservation (IFR) for Sawmill Creek, the outlet stream of Blue Lake reservoir. This application is based upon hydrologic data acquired prior to creation of the Blue Lake reservoir in the late 50's and early 60's. It requests that substantial portions of the statistically available flows be left in the stream for fish habitat. On an average annual basis 65% of the flow is requested. The total request is only about 1,000 acre-feet less than the total annual flow during the driest year of the period of record. These flows are no longer physically available instream due to hydroelectric, public water supply, and other diversionary uses, and are not legally available because of the existence of water rights created prior to ADF&G's application. Note also that these flows could not be delivered to the reach applied for without violating reservoir level requirements, unless substantial amounts of existing water appropriations were revoked or relinquished.

Realistically, it would appear to be the intent of ADF&G's IFR application to place a water right claim in priority order among the stream's allocations, which would take effect when and if more senior rights were ever abandoned or forfeited due to non-use or decommissioning. Those amounts of water thus abandoned or forfeited would then become instream flows for fish habitat. ADF&G appears to have anticipated that the closure of the pulp mill would result in a substantial amount of unappropriated water becoming available for appropriation for instream flow. However, this anticipation apparently did not reckon with the legal right that APC had for a time to transfer its water right to CBS, which it exercised. Thus this water right retained its original priority date senior to the IFR application's and was changed to other diversionary uses that CBS wished to develop for economic reasons, to replace jobs and income once provided by the pulp mill.

At first glance it would appear that the amount (6,271.5 cfs, or about 8.7 cfs) by which the old pulp mill water right was reduced upon its transfer to the CBS (because of the mill's reduced water use before it shut down) would now be available for instream flow. If that proves to be the case, the IFR would be next in priority order to appropriate this water. However, an instream flow condition worked out prior to the mill's shutdown requires a bypass reach flow schedule that is dependent upon the reservoir rule curve established in part to protect rainbow trout. Theoretically, the reduced total demand on the reservoir should allow the 8.7 cfs to be delivered to the stream without increasing the probability of reservoir elevations going below the curve. ADF&G, however, has expressed concerns that the existing rule curve does not adequately protect resident

rainbows, and has called for new studies of fish habitat and reservoir operation. If their concerns prove valid, it may be that increased flows for fish in the bypass reach could only be made at the expense of fish in the reservoir and/or existing appropriations.

CBS's FERC license will soon undergo review for relicensing. Studies will likely be required for the above purpose, as well as for evaluation of increasing the dam height, and other purposes. ADNR expects that these studies can, among other things, help estimate the actual amount, if any, of unappropriated and available water in this watershed, for allocation to instream flow or other uses.

ADF&G's unadjudicated IFR application creates a situation that no unappropriated water in the Blue Lake watershed is surplus to the hydrologic unit, since any unappropriated water would be claimed for additional instream use (if it is capable of being used in the reach of stream applied for). The water CBS has requested for removal, however, is a portion of CBS's water right already appropriated for public industrial water supply. Unless CBS voluntarily relinquished or transferred some of this water for additional instream use or lost the right through abandonment or forfeiture, it cannot be allocated for that purpose, and must therefore be considered surplus to needs for instream use.

Water needs in other areas of the Hydrologic Unit

CBS's review of available documentation of water needs was not required to include needs outside of the Sitka area. Their canvass revealed no other uses for Blue Lake water within the Sitka area, which is not unexpected considering the abundance of water resources. Additionally, ADNR finds no expressed need in the record for Blue Lake water elsewhere in the hydrologic unit (all of Southeast Alaska). Commentors do not identify any needs for Blue Lake water elsewhere in the hydrologic unit. This is again not unexpected. ADNR reasons that the likelihood of there existing a water need within the hydrologic unit that had a practicable link to Blue Lake is so scant that there is no need to search for indications of such need in documentation for other parts of Southeast Alaska. This reasoning is based in part on the abundance of water resources in Southeast Alaska.


According to the U.S. Geological Survey, National Water Summary, Southeast Alaska has a total discharge of 620,000 cfs of which 500,000 cfs originates in Alaska (the rest is inflow from Canada). 500,000 cfs approximates 361,350,000 acre-feet per year. The requested authorization to remove 13.6 MGD equates to 15,207 acre-feet per year, or 0.0042% of the hydrologic unit total. To the extent that such comparisons have meaning, the U.S. Geological Survey estimated the 1987 total water use in Southeast Alaska to have been approximately 221 MGD (247,552 acre-feet per year); thus this removal would be a significant increase

(6%) in regional use, although a very small portion of total regional runoff or discharge.

Conclusion:

The record contains no evidence of water needs within the hydrologic unit that have a practicable link to the Blue Lake water proposed to be removed from the hydrologic unit, except for the need indicated by ADF&G's IFR application. The water to be removed, however, is appropriated to public industrial water supply use and is therefore not available for appropriation to instream use.

It is therefore concluded that the water proposed to be removed from the hydrologic unit is found to be surplus to the water needs within the hydrologic unit, pursuant to AS 46.15.035(a)(1).



John Dunker, Water Resource Officer
Water Resources Section, SERO

14 Feb '01

(Date)