



CITY AND BOROUGH OF SITKA

ASSEMBLY CHAMBERS
330 Harbor Drive
Sitka, AK
(907)747-1811

Meeting Agenda

City and Borough Assembly

Mayor Gary Paxton
Deputy Mayor Steven Eisenbeisz,
Vice Deputy Mayor Valorie Nelson,
Aaron Bean, Kevin Knox, Dr. Richard Wein, Kevin Mosher

Municipal Administrator: Keith Brady
Municipal Attorney: Brian Hanson
Municipal Clerk: Sara Peterson

Tuesday, April 30, 2019

6:00 PM

Assembly Chambers

SPECIAL MEETING

I. CALL TO ORDER

II. FLAG SALUTE

III. ROLL CALL

IV. PERSONS TO BE HEARD:

Public participation on any item off the agenda. All public testimony is not to exceed 3 minutes for any individual, unless the mayor imposes other time constraints at the beginning of the agenda item.

V. NEW BUSINESS:

A [19-091](#) Discussion / Direction / Decision on bulk water and NSRAA contract negotiations

Attachments: [Memo.pdf](#)

[01 Currents Consulting Bulk water summary 2019 03 19.pdf](#)

[02 NSRAA water delivery agreement 2012.pdf](#)

[03 Utility Director Memo February 4.pdf](#)

[01 GPIIP Director Memo Water Delivery infrastructure- Assembly \(v2\).pdf](#)

[02 SEDA April 2019 Assembly Water delivery infrastructure letter.pdf](#)

[DRAFT 2019 Facility Water Delivery Agreement](#)

VI. PERSONS TO BE HEARD:

Public participation on any item on or off the agenda. Not to exceed 3 minutes for any individual.

VII. ADJOURNMENT

Note: Detailed information on these agenda items can be found on the City website at <https://sitka.legistar.com/Calendar.aspx> or by contacting the Municipal Clerk's Office at City Hall, 100 Lincoln Street or 747-1811. A hard copy of the Assembly packet is available at the Sitka Public Library. Assembly meetings are aired live on KCAW FM 104.7 and via video streaming from the City's website. To receive Assembly agenda notifications, sign up with GovDelivery on the City website.

Sara Peterson, MMC, Municipal Clerk

Publish: April 26



CITY AND BOROUGH OF SITKA

Legislation Details

File #: 19-091 **Version:** 1 **Name:**
Type: Item **Status:** AGENDA READY
File created: 4/24/2019 **In control:** City and Borough Assembly
On agenda: 4/30/2019 **Final action:**
Title: Discussion / Direction / Decision on bulk water and NSRAA contract negotiations
Sponsors:
Indexes:
Code sections:
Attachments: [Memo.pdf](#)

[01 Currents Consulting Bulk water summary 2019 03 19.pdf](#)
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Date	Ver.	Action By	Action	Result
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City and Borough of Sitka

100 Lincoln Street • Sitka, Alaska 99835

MEMORANDUM

To: Mayor Paxton and Assembly Members

From: Keith Brady, Municipal Administrator

Date: 4-26-19

Subject: Direction and Decision regarding Bulk Water and NSRAA

Summary

On Tuesday, April 30 there will be two intertwined but separate issues regarding water out at GPIP. One is the bulk water delivery system and the other is NSRAA water delivery system, and both are tied to the penstock that feeds the Blue Lake Power House.

In the memo from Currents Consulting (in packet) lays out that there are three factors why it is not safe to operate the current system for bulk water and he offers two solutions with cost. Currents Consulting will have a representative at the meeting to answer questions while looking to solutions for bulk water. There was a study done last year and the 10 Technical Memos (TM) are all online at <http://www.cityofsitka.com/government/departments/electric/ElectricDeptStudies.html> under "Bulk Water & Industrial Water Study – 2018"

While not finalized for the packet I am working with NSRAA to finalize an agreement on what CBS and NSRAA are responsible for. The 2012 agreement worked as a contract in the past (in packet). The Municipal Attorney and Administrator feel that CBS should have a more formal contract, if desired by the Assembly, that would make sure that insurance and indemnification are covered. The agreement we are working on could act as an exhibit to the more formal contract. The new agreement will be sent to the Assembly by end of day Monday, April 29.

The Electric Utility Director and GPIP Executive Director have asked questions (in their individual memos in the packet) for the Assembly to consider regarding bulk water and water delivery to NSRAA. Some of them have already been discussed, addressed and answered as we have been working through these big issues.

Fiscal Note

Bulk water solutions are estimated to be between \$1.6M-1.9M.

NSRAA solutions are to be paid by NSRAA.

Recommendation

A decision from the Assembly on the direction to move forward with bulk water, and direction on further negotiations with NSRAA and the agreement with them.

March 18, 2019

Mr. Scott Wagner
GPIP Board Chairman
c/o Garry White
329 Harbor Drive, Suite 212
Sitka, Alaska 99835

Dear Scott,

Subject: **Synopsis of 2018 Study Findings
for Bulk Water System**

As requested in the March 14, 2019 GPIP board meeting, this letter summarizes the 2018 study findings, related to the bulk water system at Blue Lake. The comments below focus specifically on the bulk water system and do not address related Blue Lake water issues affecting NSRAA and electric power generation.

EXISTING SYSTEM

The existing bulk water system, as modified in 2015, is not safe to operate due to three factors:

- The two main butterfly valves in this system cannot be safely operated. This issue relates to the design of these valves being not adequate for flow control service.
- It is not known whether the buried 36-inch pipeline in the system can withstand the higher lake pressure. This issue relates to how extensively this 50-year old bare steel pipe has rusted and lost its strength.
- There is currently no backup drinking water source for the City of Sitka. Safe shut-off of water flows into the bulk water system relies on operation of the tunnel intake gate near Blue Lake dam. This gate has not been operated since 2015 as no backup municipal drinking water source exists. If this gate were to fail in any way and could not be re-opened then a long term interruption of drinking water supply could occur.

MODIFICATIONS REQUIRED TO SAFELY DELIVER BULK WATER

Two primary alternatives to provide a workable bulk water system were identified in the 2018 study effort. These include:

- Adding a regulating valve near the Blue Lake penstock (including related piping changes) for a total cost of about \$1.86 million. This would provide adequate flow for both bulk water and the NSRAA expanded hatchery. To safely install this system would require an outage of the Blue Lake tunnel. It may be possible to install this system using the 36-inch root valve to isolate the construction area, but this is not recommended.

- Building a new bulk water control valve and pipeline, connected to the new section of Blue Lake penstock, for a total cost of about \$1.58 million. This would provide adequate flow for both bulk water and NSRAA.

Note that any tunnel outage requires a backup drinking water source be available, as the City water system has about 8 hours of water supply in its reserve tanks. A tunnel outage for construction would require possibly several weeks without water in the tunnel.

ADDITIONAL FACTORS RELATED TO SUCCESSFUL BULK WATER DELIVERIES

We touched on briefly in the March 14 meeting, but I wanted to note in this letter:

- It is not clear that the existing bulk water infrastructure can deliver adequate flow and pressure to a ship in Silver Bay. Brief conversations with shippers suggest that the available pressure is quite low compared to their desired pressure at the ship. Addressing this issue may require modification of the bulk water system, addition of booster pumps, and additional piping from the dock to the ship.
- Whatever is done to address this should be carefully coordinated with the prospective water buyers, shippers, and the City departments that manage flows from the Blue Lake system.

As noted in the call, it seems unrealistic to consider pumping from to a ship from the afterbay of the Blue Lake hydro powerhouse. The system needs pressure off the penstock into the bulk water system, possibly with modified bulk water piping or with pumps added to boost the pressure to what may be required at the ship.

Further information regarding other industrial water deliveries and flows to the NSRAA hatchery are summarized in my letter of January 28, 2019. Thank you for including me in the March 14, 2019 meeting. If you have any further questions regarding the 2018 study, my January 2019 summary memo, or this letter, please contact me.

Very Truly Yours,



Paul Carson, P.E.
Principal

cc: Bryan Bertacchi, CBS Electric Department

Water Delivery Agreement

**Between
City and Borough of Sitka (CBS) and Northern Southeast
Regional Aquaculture Association (NSRAA)**

CBS Shall:

1. Provide up to 6.4 million gallons per day of raw water to NSRAA at no charge.
2. Have the right to determine which method or water line is used to deliver raw water to NSRAA based on Blue Lake water levels.
3. Provide and maintain afterbay pumps to move up to 10 cfs of water via a water line from the afterbay to the bulk water pipeline.
4. Permit NSRAA to install a tap and isolation valve in the 42" bulk water line pending CBS approval.
5. Allow NSRAA to install a root valve, PRV, and controls after existing shut off valve on the 16" former filter plant backwash water line located in the plywood shed housing the 2 pulp mill 16" water lines pending CBS approval.
6. Allow NSRAA, at their own expense, to replace the existing shut off valve with their own shut off valve pending CBS approval.
7. Allow NSRAA access to the plywood shed housing the 2 pulp mill 16" water lines and control of valves and controls between the Industrial water penstock valve and the NSRAA

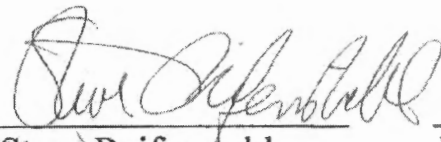
root valve controlling flow through the 16" former filter back flush water line.

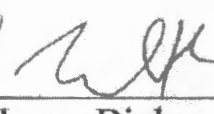
8. Notify NSRAA as soon as planned temporary suspension is known to CBS but at least 30 day prior to any planned temporary suspension of the supply of water.
9. Perform necessary actions to allow Sawmill Creek water to fill the afterbay in the event of a loss of supply of water via the penstock or hydro turbine outage. Note: This action could take up to a week depending on the state of Sawmill Creek and the tailrace bypass gate allowing water to back fill into the afterbay.
10. Maintain the 42" bulk water valve at the intake end of the bulk water line in the open position.
11. Maintain the two 36" bulk water loading valves at the discharge end of the bulk water line in the closed position under normal operation and will coordinate with NSRAA before these valves are to be opened for flushing, filling a ship or other activities.
12. Allow NSRAA's pumps to be connected to city back up power generation for hydro building.

NSRAA Shall:

1. Be responsible for all costs associated with construction of a 16" NSRAA Emergency water line and isolation valve.
2. Install NSRAA controls between the 16" industrial water penstock valve and the NSRAA root valve.
3. Provide and maintain NSRAA controls.

4. Provide and maintain all equipment at the NSRAA facilities.
5. Be responsible for purchase and maintenance of supplies e.g. batteries for valve controls.
6. During emergency penstock or electrical outages, NSRAA shall request CBS approval and perform necessary actions to allow Sawmill Creek to fill the afterbay.


Steve Reifensstuhl
NSRAA

 -ACTING
10/15/12
James Dinley
City and Borough of Sitka

Agreed Upon: October 11, 2012



City and Borough of Sitka

100 Lincoln Street • Sitka, Alaska 99835

MEMORANDUM

To: Mayor Paxton and Assembly Members
Keith Brady, Municipal Administrator

From: Bryan J. Bertacchi, Electric Utility Director

Cc: Brian Hanson, Municipal Attorney

Date: 2/4/2019

Subject: NSRAA Request for Additional Service

Executive Summary

NSRAA is a valued member of our Sitka Community and they have recently requested multiple additional services through the GPIIP and CBS. At the same time, much concern exists in the community over electric rates and electric costs. Embedded within this new NSRAA request, is a subsidization by electric customers for NSRAA activities. The CBS, and specifically the Electric Department and its Customers, would benefit from clear direction on a number of key issues from the Assembly with regard to NSRAA. This new request, by NSRAA and through GPIIP, should not be granted without resolution of these existing issues. These issues include but are not limited to:

1. **NSRAA has requested an additional 10CFS of water for a proposed new Hatchery at Sawmill Cove and has further proposed, through GPIIP for Assembly approval, terms favorable to NSRAA and unfavorable to the Electric Customers.** This water could:
 - a. Not be supplied.
 - b. Be supplied from the Blue Lake powerhouse after-bay
 - c. Be supplied from the Blue Lake high pressure penstock system.

Supplying this water from the Blue Lake Powerhouse after-bay creates a 2.5:1 ratio improvement for electric production over the energy required to pump the water to industrial customers such as NSRAA but could still result in a loss of annual electric sales of approximately \$120,000. Alternatively, supply of this water from the high pressure penstock system will require up to \$590,000 per year in supplemental diesel generation. Either option of supplying water will create associated high costs and risks. Direction is needed from the Assembly as to how the risks and costs should be allocated.

- d. **Supplying NSRAA from the existing pressure penstock** will require up to \$590,000 per year in diesel generation costs which will be, under existing city code, billed to the electric ratepayers as an additional surcharge above the current electric rates (see SGC 15.01.020 section I). This cost will occur annually during: a drought, an extended outage of the Green Lake project, or when additional new load is served such as USCG and the new SEARHC hospital expansion. This impact would occur during the planned outage of Green Lake in FY21.
- e. **Supplying NSRAA from the Blue Lake after-bay** would require the addition of a new pumping system and additional piping with an estimated 2018 initial capital cost of approximately \$965,000 (see TM04 from the Bulk Water Study). This pumping system would be for 20CFS, which is the new combined total requested by NSRAA. The annual cost of electricity for this system is estimated to be approximately \$120,000 per 10 CFS based on a 15 cent electric rate. As load grows, this \$120,000 per year of electricity would not be available to other paying customers. Annual operation and maintenance costs should be low.
- f. **The amount of water-** contractually should be capped by a CFS rate and a daily flow rate to reduce impacts to our isolated electric grid which is normally managed through the Blue Lake penstock flow.
- g. **Water Rights:** The CBS owns a number of specific water rights from the Blue Lake Watershed. CBS is able to manage and provide the best value to the community by structuring alternate uses from multiple delivery points.

Some of these water rights are for power generation, some for domestic water, and some for industrial water. During a drought or other conditions outlined above, the CBS will not have enough water to fully service all the imbedded water rights. This can be resolved if some customers take water from the Blue Lake after-bay. Customers which take water from the after-bay provide for efficient use of our water resource without negatively impacting our power generation. Alternatively, the CBS, during drought or other conditions, may have to selectively reduce water availability to customers. Some current customers may be considering intervening in our CBS water right permits. The potential negative impact for the community should be considered in our written agreements when contracting with these customers.

- h. **Conveyance System:** Separate and distinct from water rights, the Electric Department Customers have funded the water delivery system which provides water from the dam to other customers at Sawmill Cove. Presently, no water customers share in the cost of this delivery system. Again, this delivery system was funded by electric customers, not industrial water users.
2. **NSRAA has no Lease for Operating at the Green Lake Dam Site.** NSRAA operations on Green Lake Road and at the Green Lake dam are creating significant uncompensated and increasing costs to the electric ratepayers with significant liabilities

for the CBS. Additionally, a number of hazardous conditions need to be addressed. Further, the existing lease dated 2/19/1981 (section a. through c.) allows only for a single, marked vehicle. The current NSRAA road use far exceeds the use by CBS.

- a. **Road Maintenance**: The cost of road maintenance continues to increase and is presently at about \$100,000 per year. The use by NSRAA is significant and includes the section from the Medvejie hatchery to the Green Lake dam. Presently, NSRAA road use exceeds the limitations in the existing Medvejie Hatchery lease and no compensation to CBS for road maintenance is paid by NSRAA.
- b. **Snow Removal**: As the CBS owns the road and access by our lessee NSRAA and by CBS staff is required, the annual snow removal contract is approximately \$25,000. Presently, NSRAA does not share in this cost.
- c. **Access to the Dam Structure**: Presently, without CBS supervision, NSRAA utilizes a crane and other heavy equipment on the top of the dam to access their fish pens. The design of the dam structure, is susceptible to damage from untrained personnel operating heavy equipment. Eliminating or restricting access to the dam would significantly lower the risk to CBS for damage to the dam structure, damage to the turbines, lowering the risk of equipment falling off either side, and damage to the safety boom.
- d. **Access through the Safety Boom**: Presently, without CBS supervision, NSRAA is disconnecting sections of the CBS Electric Department safety boom to access their fish pens. This has created equipment damage, equipment risk, electric system outages, a high level of personnel risk for the public, and is an overall dangerous position for NSRAA personnel and the CBS personnel who make repairs in adverse conditions.
- e. **Access to the Lake**: Alternatively, the maintenance road (on the left as you approach the lake) could be cleaned, improved, and maintained. Additionally, a ramp and staging area could be constructed to allow NSRAA to access the lake outside of the safety boom and dam superstructure, eliminating their need to access the dam. This would significantly lower the risk to CBS for damage to the dam structure, damage to the turbines, lower the risk of equipment falling off either side, and significantly reduce damage to the safety boom.

Note: Estimates for the road work from a local contractor have been on the order of \$20,000. Annual maintenance would also be required.

3. **Existing 10 CFS to Sawmill Creek Hatchery**

- a. **Under the existing contract**, the CBS has the right to determine the source of water for NSRAA. Due to the near drought condition of 2018, and the impending outage of the Green Lake project. The electric department has given notice to NSRAA that they will need to begin taking water from the Blue Lake after-bay as early as the summer of 2019 (see the "Water Delivery Agreement" dated 10/11/2012). Field testing and engineering analysis, has determined that a change to the existing hatchery controls is required for the existing after-bay pumps to supply the 10CFS.

- b. **Backup System:** The backup system which will be available when water exists in the penstock and when Blue Lake power plant is shut down, will be the existing penstock high pressure system. This system is currently the primary system, but will be converted to the backup water system. The new NSRAA request to increase the size of this system should be modified to allow this system only as a back-up to the after-bay system.

4. **Summary of Questions:**

NSRAA NEW SUPPLY REQUEST –

- a. Should the CBS commit to supply NSRAA an additional 10CFS of industrial water?
- b. Should the supply come from the CBS Electric Department high pressure penstock or from the after-bay?
- c. Who should pay for the capital cost, ongoing maintenance, and operations?
- d. If pumped from the after-bay, who pays the electric meter cost of pumping?
- e. If diesel generation is required due to the NSRAA water source, who is responsible to pay?

NEED FOR A LEASE AT THE GREEN LAKE DAM SITE:

- f. Should a Lease with typical CBS terms and conditions including liability be implemented with NSRAA to allow them to continue to operate at the Green Lake dam site?
- g. How should road maintenance costs of the Green Lake Road be shared with NSRAA?
- h. How should the snow removal costs of Green Lake Road be shared with NSRAA?
- i. Should CBS allow NSRAA access to the dam superstructure?
- j. Should CBS allow NSRAA to disable the safety boom and pass through the safety boom?
- k. Should NSRAA access to the lake be off the dam and on the northern access road? If so, who pays the initial cost, and who provides the annual maintenance costs.

THE EXISTING NSRAA SUPPLY

- l. Should NSRAA operate primarily from the after-bay pumps for the existing 10CFS connection or should we subject the electric customers to the risk of the \$590,000 per year cost of diesel generation?
- m. Should the NSRAA request to increase the size of the existing penstock connection be restricted to emergency backup only (should the normal take for water be from the after-bay?).



329 Harbor Drive, Suite 212
Sitka, AK 99835
Phone: 907-747-2660

Thursday, April 4th, 2019

MEMORANDUM

To: Mayor Paxton and members of the Assembly

From: Garry White, GPIP Director

Subject: CBS Raw Water Delivery Infrastructure

Introduction

CBS officials have informed the GPIP Board that currently the CBS bulk water delivery infrastructure cannot deliver water without the use of NSRAA water infrastructure. The flow rate of water through NSRAA water infrastructure will not meet the flow rates needed for a bulk water export venture.

The GPIP Board met on January 29th, 2019 to discuss results of CBS investigating into the bulk water infrastructure. The CBS Electric Department Director provide a copy of 10 separate studies that were completed on the water delivery infrastructure at the meeting. (Studies can be found the CBS Electric Department Website under the Studies section.)

The GPIP Board discussed the raw water delivery infrastructure at its February, March, and April board meetings in 2019. The Board approved the following motion at its March meeting:

MOTION: **M/S Unger/Finkenbinder** moved to pursue whatever is necessary to continue to be able to promote or sell bulk water in the Gary Paxton Industrial Park as soon as possible.

During the March meeting the GPIP Board requested a synopsis of the recent studies completed to determine the best solutions to get the high pressure water delivery system to working order. Please see the attached memo dated March 18th, 2019 from Currents Consulting.

Potential next steps are to move forward with an immediate fix to the system, hold off until the penstock is dewatered as part of the secondary water system project, or terminate the Bulk Export venture completely. Terminating the Bulk Export venture has implications in minimizing or eliminating the ability to provide Industrial Water to the park to existing or future users.

Background

The GPIIP Board was made aware of issues with the CBS raw water delivery infrastructure in March 2018. Likewise, the Assembly was also made aware during multiple Executive Sessions in March 2018. The GPIIP Board recommended at its March 2018 meeting to transfer \$100,000 from the Raw Water Fund to the CBS Electric Department to investigate and enhance the water delivery system for both Bulk Export and Public Industrial Use water.

The GPIIP Board met in April 2018 to discuss the bulk water infrastructure and requested copies of the consultant's scope of work for the bulk water infrastructure analysis.

The GPIIP Board met again in June 2018 to discuss the bulk water infrastructure and review the scope of work for the bulk water analysis project. The Board gave direction to CBS staff to "Ensure the Public Industrial Water delivery rate up to the full amount on the design and to prioritize the task list so the bulk water service can deliver the maximum flow as soon as possible."

The GPIIP Board discussed the project at its July, August, September, October, and December meetings in 2018. The Board heard public testimony from NSRAA representatives during these meetings expressing the need to have the issue resolved to accommodate their potential expansion at the GPIIP.

Additional Information

- The GPIIP Director is currently working with 6 different entities that are interested in exporting Sitka water for bulk export. Additionally, the Director is working with 3 entities interested in establishing bottling operations in Sitka.
- On April 2nd, 2019 SEDA sent the attached letter to the CBS Assembly regarding the issue.

Bulk Water Delivery Infrastructure

The current bulk water delivery infrastructure consists of two main systems; the high pressure system, running from Blue Lake Dam to the former turbine pit or wet well at elevation 148.7' and a lower pressure, system running from the wet well location to the shores edge of Sawmill Cove via 42" and 36" pipe. The system was designed to flow at a rate of at least 33.6 million gallons of water per day.

Clients interested in exporting Sitka's water via large tanker ships or floating bags have identified a high volume flow rate to minimize the time a ship would need to spend in port taking on water through the existing infrastructure.

Clients interested in exporting Sitka's water in small container sizes of 5 gallon to 20 foot containers have expressed interest in having a lower volume flow rate to allow for the small containers to be filled.

Action

- Assembly discussion and recommendations on consultant's analysis report on current high volume bulk water infrastructure.
- Assembly discussion and recommendations concerning water allocations for economic development purposes.
- Assembly discussion and recommendation regarding Currents Consulting Water & Power Services March 18th memo.



SITKA ECONOMIC DEVELOPMENT ASSOCIATION

329 Harbor Drive, Suite 212 ★ Sitka, Alaska 99835 ★ (907) 747-2660 ★ fax (907) 747-7688 ★ www.sitka.net

City and Borough of Sitka Assembly
100 Lincoln St.
Sitka, AK 99835

April 2, 2019

Dear Mayor and members of the Assembly:

For the past 19 years, SEDA has had the pleasure of marketing Sitka's fresh water assets to the world on behalf of the City and Borough of Sitka (CBS). During that time, SEDA was successful in negotiating multiple water purchase agreements to various companies and partners that wish to export Sitka's water. These water purchase agreements have brought close to \$1.4 million dollars in to the CBS coffers.

Currently the CBS has an active water purchase agreement with the South African firm, Green Gold Distributors Ltd. Additionally, five (5) other separate entities are in discussion with Garry White that wish to obtain water purchase agreements.

The Gary Paxton Industrial Park (GPIP) Board of Directors and the CBS Assembly were made aware over a year ago that there were issues with the CBS's ability to deliver water for bulk export. The GPIP Board and Assembly allocated funding to investigate the water delivery system to allow for bulk export and public industrial water use in the GPIP properties in March of 2018.

The SEDA Board respectfully requests that the CBS water delivery infrastructure issue be resolved immediately. SEDA has suspended all of its marketing efforts of Sitka's fresh water assets until a clear direction forward can be identified.

SEDA wishes to continue to work with the CBS on moving the water export venture forward to benefit the community. Please let us know how we can help find a solution.

Sincerely,

Trevor Harang – SEDA Board President

Water Delivery Agreement

Between City and Borough of Sitka (CBS)

and Northern Southeast Regional Aquaculture Association (NSRAA)

CBS Shall:

1. Allow water use will be based upon a calendar year average 14cfs per day with a maximum continuous flow of 20cfs(beginning in 2021), as metered from the penstock, at no charge
2. Have the right to determine which method or water line is used to deliver raw water to Gary Paxton Industrial Park (GPIP)
3. Allow NSRAA (at NSRAA's expense) to upgrade existing pump supply up to 16cfs through existing infrastructure, subject to review and approval by CBS and not to be unreasonably withheld (to be completed by December 2021).
4. Maintain afterbay pumps to move up to 16 cfs of water via a water line from the afterbay to the bulk water pipeline (to be completed by December 2021).
5. Allow NSRAA (at NSRAA's expense) to upgrade existing pump supply to up to 16cfs through existing infrastructure (to be completed by December 2021).
6. Allow NSRAA access to the Raw Water(?) shed housing the 2 pulp mill 16" water lines and control of valves and controls between the Industrial water penstock valve and the NSRAA root valve controlling flow through the 16" former filter back flush water line.
7. Allow NSRAA to upgrade 10" PRV supply in the Raw Water shed to a 14" supply as shown in approved engineered drawing (HDR drawing dated 11/7/2018) (to be completed by August 2020).
8. Notify NSRAA as soon as planned temporary suspension is known to CBS but at least 30 day prior to any planned temporary suspension of the supply of water.
9. Maintain the 42" bulk water valve at the intake end of the bulk water line in the open position.
10. Maintain the two 36" bulk water loading valves at the discharge end of the bulk water line in the closed position under normal operation and will coordinate with NSRAA before these valves are to be opened for flushing, filling a ship or other activities.
11. Allow NSRAA to install controls on the Bulk Water line, afterbay pumps and NSRAA's 16" PRV penstock supply (may involve conduit run from afterbay pumps to Raw Water Shed), subject to review and approval by CBS and not to be unreasonably withheld. (to be completed by December 2021).
12. Allow NSRAA unimpeded access to afterbay pumps for testing and operation purposes and shall comply with CBS safety procedures.

NSRAA Shall:

1. Provide and maintain controls on bulk water line, afterbay pumps, and NSRAA 16" PRV penstock supply, subject to review and approval by CBS and not to be unreasonably withheld.
2. Provide and maintain all controls and equipment at the NSRAA facilities.
3. Be responsible for purchase and maintenance of supplies of NSRAA controls and facilities.
4. Request CBS approval and perform necessary actions to allow Sawmill Creek to fill the afterbay, during emergency penstock or electrical outages.
5. Notify Blue Lake Powerhouse of changes to status of afterbay pumps
6. Provide and assume all liability for all NSRAA employees and contractors.
7. Demonstrate an alternate way to take water than from the afterbay or penstock when neither is available.
8. Use afterbay as primary system and penstock as the secondary system (to be completed by December 2021)

Steve Reifenstuhl, NSRAA

Keith Brady, City and Borough of Sitka

Agreed Upon: _____