

# The Alton Gas Project

The fight to save the Shubenacadie River and countering a flawed project approval process



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# EXECUTIVE SUMMARY

Alton Natural Gas Storage Lp is not safe for the environment. The brine they intend to release into the Shubenacadie River is acutely toxic to life. On February 25, 2019 Environment and Climate Change Canada issued a Notice of Intent, which confirms that the brine Alton Gas plans to release into the river is a deleterious substance according to the Fisheries Act and prohibited by Section 36(3). The project as currently planned is against the law. Both the Province of Nova Scotia and Alton Gas have maintained that this project is safe for the environment when it clearly is not.

For the last 6 years, there has been a steady opposition to Alton Gas from the public. The community is fighting tooth and nail to protect Treaty Rights, fish and fish habitat, the Inner Bay of Fundy Atlantic Salmon, and the Shubenacadie River itself. The Alton Gas project poses a threat to all of these things.

Members of the community of Brentwood have raised serious concerns over the prospect of living on top of the gas caverns and near the above-ground gas piping facilities. Community members, environmentalists and Mi'kmaq agree that projects like Alton Gas promote further fossil fuel exploration, extraction and development, locally and regionally. This project is not compatible with the current climate emergency and will hinder our ability to address the greatest crisis that has faced humanity in modern times. While the climate considerations are serious, this report will focus on the legality and harm of the planned brine release into the Shubenacadie River.

We are asking the province of Nova Scotia to suspend all permits because they were granted based on false premises. We are asking for a public inquiry and a review of the actions taken with regards to this project.

In early 2007, Alton Gas filed an Environmental Assessment (EA) registration document with Nova Scotia Environment. Through Freedom of Information requests, we can see the government response in the form of comments on the draft EA. The comments address specific scientific concerns by various departments of government. The process allows the proponent, Alton Gas, to respond to the concerns and adapt design plans if required. In response to the draft EA, Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (DFO), the Nova Scotia Department of Natural Resources, and Nova Scotia Environment and Labour expressed concerns regarding the legality of Alton Gas' plans and the impacts on the environment. Many legitimate concerns remain unaddressed to this day. Specifically, ECCC explains section 36(3) of the Fisheries Act, which prohibits the permitting and depositing of deleterious substances in water frequented by fish. Based on these comments and concerns, the Minister of Nova Scotia Environment rejected the assessment in 2007 and requested more information.

On the second attempt, Alton Gas' EA is approved on Dec. 18, 2007. The project gains NS Ministerial Approval with Conditions, but the same concerns about the deposition of deleterious substances remain. Alton Gas should have been aware the project would be out of compliance, but failed to change their plan. Nova Scotia Environment was aware that the brine discharge required ECCC oversight and scrutiny. This is supported by condition 2.1(B) of the environmental assessment, which explicitly states that ECCC oversight and approval was required for the brine discharge.

# STAGES OF THE ALTON GAS APPROVAL

Below are three steps of the regulatory process that are important to understanding the serious mis-steps and errors that have led to the approval of the Alton Gas project. We outline how far Alton Gas managed to work its way through the provincial government process based on a non-compliant project.

The problematic steps in the approval process include:

1. Environmental Assessment Approval
  - 1a. Condition 2.1 – DFO and Species at Risk protection
  - 1b. Condition 2.1(b) – ECCC and the Pollution Provisions
2. Industrial Approval
3. Appeals of the Industrial Approval
  - 3a. Inadequate Indigenous consultation

This report will demonstrate how each of the above points contributed to where we are today – provincial approval of a project that, if initiated, would immediately break federal law, place species at risk in harm's way, and dump a deleterious substance into an important fish habitat. It will outline what appears to be failure to follow policies and procedures and misleading information.

## 1. ENVIRONMENTAL ASSESSMENT APPROVAL

Environmental assessments are just that, an assessment of the environmental impact of a proposed project. They are intended to protect the environment from impacts that would degrade water, habitat and living creatures. In response to Alton Gas' Environmental Assessment, several terms and conditions were put in place. These terms and conditions are legal obligations intended to maintain safety and protect the environment.

The provincial assessment of Alton Gas' project outlined two particular conditions. Condition 2.1 requiring oversight from Fisheries and Oceans Canada, the federal department responsible for the habitat protection provisions in the federal Fisheries Act

Condition 2.1(b) which requires clearance from Environment and Climate Change Canada, the federal department responsible for the pollution provisions in the federal Fisheries Act.

These two measures were meant to ensure compliance with federal law. Given that the full strength brine will be discharged into an open channel frequented by fish, it is of the utmost importance that these terms and conditions are followed as they are the safeguards for our environment. It is also a legal obligation to follow the conditions under the Provincial Environmental Act.

### 1a. Condition 2.1 – DFO and Species at Risk protection

Here the Province of Nova Scotia did meet its obligation, however the oversight by DFO was not adequate. DFO's role was to assess risk to fish and fish habitats including SARA-listed species. The Shubenacadie River is Critical Habitat for the Inner Bay of Fundy Atlantic Salmon. SARA permit is required when negatively affecting habitat of SARA species, however DFO did not make such a request and approved the monitoring measures according to Alton Gas' plan. This is not acceptable as it does not protect fish or habitat and puts a Federal Species at Risk in danger. Through a Freedom of Information request, a science report was returned which outlines how extremely fragile this population of fish is. DFO has outlined in science studies that the total wild population of Inner Bay Atlantic Salmon may only be 200 individuals. Any effects to habitat or fish will affect the survival rate of this entire population of Inner Bay of Fundy Atlantic Salmon, potentially pushing them to extinction. There is a monitoring plan to see if any tagged Inner Bay of Fundy Atlantic Salmon enter the brining channel in the spring of the first year, when brining is already taking place, putting any Salmon that do enter the channel in contact with full strength brine - 260ppt. This demonstrates that DFO, NSE, and Alton Gas understood that a SARA-listed species could come into contact with full strength brine. This is completely unacceptable. With its approval of the Alton Gas plan, it appears to us that DFO could have done more to apply safeguards to SARA-listed species and habitat. The Shubenacadie River is also home to American Eel and Stripped Bass which are scheduled to be assessed for SARA designation.

## 1b. Condition 2.1(b) – ECCC and Pollution Provision

Nova Scotia Environment was responsible for ensuring that Alton Gas obtained clearance from ECCC regarding their plans for dumping brine. NSE and Alton Gas were both aware that 260 parts per thousand (ppt) full strength brine would be discharged into the man made channel (note that seawater is about 34 ppt and the Shubenacadie River is variable, between 0 ppt and about 28 ppt). The channel is free flowing to fish and therefore classified as a fish habitat. The natural river currents flow through the channel and directly past the brine discharge pipes before reconnecting to the main river. Discharging deleterious substance into water frequented by fish is against the law in Canada and fines of up to \$500,000 can be issued in addition to orders to halt all operations.

ECCC is responsible for applying the Pollution Provisions of the Fisheries Act under section 36(3). NSE is expected to have known this was the case which is why condition 2.1(b) was included in the Environmental Assessment of 2007. Failure to adequately respond to condition 2.1(b) put the project on a dangerous and legally non-compliant path. On August 1st, 2018, NSE was asked: "would the brine be considered a release of a deleterious substance into a body of water that fish frequent". To this day, NSE has never publicly confirmed that the project is in violation of section 36(3) of the Fisheries Act despite the federal Notice of Intent clearly stating the violation. It is clear that Alton Gas's brine operation is not in federal compliance, and therefore not compliant with provincial approvals. Additional NSE could also be breaking the federal Fisheries Act by permitting the deposition of a deleterious substance (the pollution provisions (Section 36(3)) states "no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish"). By issuing an Industrial Approval it appears NSE is permitting the deposit of a deleterious substance which could trigger charges under the Fisheries Act resulting in a costly fine for which taxpayers would be responsible.

## 2. INDUSTRIAL APPROVAL

An industrial approval is the last regulatory hurdle before work can begin and is issued by NSE. Minister of Nova Scotia Environment, Margaret Miller granted an Industrial Approval for the Alton Gas project on January 20th, 2016. In Nova Scotia, Industrial Approvals are permits that allow the operation, construction, or reclamation of projects that fall under Division V of the activities designation regulations of the Nova Scotia Environment Act . Alton Gas completed much of the construction at the river site before the industrial approval was granted.

In the industrial approval granted to Alton Gas includes section 4(a):

*"The approval holder shall comply with all terms and conditions of the Environmental Assessment Approval issued on December 18, 2007, in accordance with the environmental assessment regulations, pursuant to Part IV of the Environment Act for the brine storage facility and associated works."*

An industrial approval means the province is satisfied that the terms and conditions in the Environmental Assessment have been addressed and permits the project to start. However, at the time of approval, Alton Gas had not satisfied condition 2.1(b) of the EA. The industrial approval contains reference documents demonstrating the oversight and approval required under the conditions of the Environmental Assessment. There is a DFO letter included in the reference documents to satisfy condition 2.1 but there is no document from ECCC to satisfy 2.1(b). To date there has never been clearance given from ECCC on the project. It is astounding that an industrial approval was and still is granted by the Province of Nova Scotia. Today we know from ECCC' Notice of Intent that ECCC has not given clearance.

Section 8(I) of the industrial approval states:

*"The approval holder shall immediately notify the department of any incidents of non-compliance with this approval."*

It should be noted that through extensive research and contact with government officials, it became clear that the Federal government agreed that the brine operation would trigger section 36(3) of the Fisheries Act. Never once was the compliance issue stated in the media by NSE or Alton Gas or any government official until the Notice of Intent on February 25, 2019.

On August 1, 2018 NSE was asked: "would the brine be considered a release of a deleterious substance into a body of water frequented by fish?". Two months later, on October 2nd, 2018, we received an answer stating:

*"NSE cannot comment on whether the brine would be considered a deleterious substance by Environment Canada. Please contact Environment Canada for a response."*

This was an interesting reply and NSE should have been able to answer this simple question.

From Access to Information requests we know that The Deputy Minister of ECCC was aware of the compliance issues no later than August 8th, 2017. We also know Stakeholder Relations from Alton Gas was aware of the compliance issue on September 22 2017. We know positively that on October 3rd, 2018, the Minister of Nova Scotia

Environment was made aware because we notified her by email. It is unfathomable that NSE didn't know previously about compliance issues. Regardless, they ought to have known when completing condition 2.1(b) of the Environmental Assessment which they approved.

Upon being notified of the compliance issues, the Industrial Approval should have been revoked immediately by the Minister of NSE. To date, NSE has never admitted the compliance issue, revoked the permits, or conducted a review or investigation into how the industrial approval could have been granted while out of Federal compliance and against the law.

### **3. APPEALS OF THE INDUSTRIAL APPROVAL.**

After the Industrial Approval was granted in January 2016, six appeals were filed including from:

- Sipekne'katik First Nations
- Valerie and Colin Hawkes
- Shubenacadie River Association
- Nova Scotia Striped Bass Association
- The Shubenacadie River Commercial Fishermen's Association
- The Ecology Action Centre
- The Council of Canadians

These appeals demonstrate the level of concern by the public regarding the Alton Gas Project. Since the public was made aware of this project, the community has had serious concerns. Several appeals outlined concerns for fish and fish habitat. Notably, Sipekne'katik First Nation – the closest Mi'kmaq Reserve to the brining facility on the Shubenacadie River – expressed concerns for fish habitat. All Mi'kmaq People have inherent and treaty rights to fish and hunt. These rights are protected by the Peace and Friendship Treaties and it is the responsibility of both Indigenous and non-Indigenous people to uphold these rights. The Shubenacadie River has been used by the Mi'kmaq for hunting, fishing, gathering, and collection of medicines and thus has significant cultural meaning. Destruction to fish or fish habitat would negatively impact Mi'kmaq Treaty Rights.

In April 2016, all six appeals were dismissed including that of Sipekne'katik First Nation. The rejections were a huge blow to public confidence due to the way the Province has handled this project. The concerns in the appeals were valid because the brine discharge is prohibited by section 36(3) of the Fisheries Act. Brine at 260ppt is acutely lethal to fish. In fact almost all species in the Shubenacadie River can only tolerate salinity ranging up to 35ppt. Science documents obtained through freedom of information confirm this. The Minister of NSE often cited the fact that all terms and conditions had been met when defending her position to dismiss the appeals. We now know this completely contradicts the Notice of Intent released by the Federal government on February 25, 2019.

#### **3a. Inadequate Indigenous Consultation**

After the appeals of the Industrial Approval were dismissed, Sipekne'katik took their

appeal to the Supreme Court of Nova Scotia. Sipekne'katik filed for a "Stay Pending Appeal" which means Alton must stop work until the courts have dealt with the appeal on the industrial approval. This was intended to stop harm to the Shubenacadie River from the brine release. The Stay was refused by the court.

Honourable Justice Michael J. Wood presided over the case. He cited conditions in the Environmental Assessment using them as assurance that the project is safe. The judge stated in his ruling he could not rule irreparable harm because he was told that all regulators had approved the brine plan based on no harm. Through the Notice of Intent from ECCC, we have proof that condition 2.1(b) was not met and is still not met. Failure to adequately ensure that condition 2.1(b) was met resulted in an incorrect Supreme Court ruling. False information was used in the courts that affected Sipekne'katik's application for a Stay Pending Appeal in order to protect the river and Indigenous Treaty Rights. Sipekne'katik is still fighting for their rights and fish habitat through the courts. Keeping in mind the Federal government has called the brine acutely toxic to life and has stated the brine release would contravene the federal Fisheries Act.

Mi'kmaq people have been instrumental in raising awareness and explaining the damages that Alton Gas could cause. Since the Notice of Intent has been released, the Minister of Nova Scotia Environment has added two amendments to the industrial approval 1) that the company keep open communication with Mi'kmaq communities and, 2) to ensure the company meets all other level of government regulatory requirements. This step is redundant as both are already conditions which should have been met before the Industrial Approval was granted. Furthermore, the ECCC Notice of Intent states that the brine discharge plan by Alton Gas violates federal section 36(3) of the Fisheries Act. How can the province possibly think the new amendment requiring all Municipal, Provincial, and Federal requirements are met is in compliance. Clearly it is not compliant with Federal law. The Province did not engage in meaningful consultation with the Mi'kmaq on a project that is out of compliance.

The Province also has a responsibility to protect water, habitat and SARA-listed species by law. Permitting a release of deleterious substances is also prohibited by the Provincial Environmental Act. NSE should be aware that 260ppt will be damaging to life, and must suspend the Industrial Approval.

# SUMMARY AND RECOMMENDATIONS

In conclusion, the Industrial Approval permit must be suspended. The province of Nova Scotia knew and understood that the brine needed to be regulated by Environment and Climate Change Canada. There is no evidence that clearance documents were given to Nova Scotia Environment from ECCC. We know from the February Notice of Intent that the brine release is considered deleterious substance which is prohibited by law. This makes the Industrial Approval invalid. The brine is acutely lethal to life, there is no other way to put it. Nova Scotia cannot state they have engaged in meaningful consultation with the Mi'kmaq on a project that is out of Federal and Provincial compliance. If the Shubenacadie River ecosystem is compromised in any way it will violate the ability for Mi'kmaq People to exercise their Treaty Rights to fish and use the river for cultural purposes. If action to suspend permits is not taken, it gives the impression that Nova Scotia cares more about Alton Gas than the Mi'kmaq People and their Rights. The notice of intent proves that all along the concerns of Mi'kmaq, environmentalist, and citizen were valid.

## **Our demands are as follows:**

- 1. Suspend all Provincial approvals**
- 2. Conduct an investigation and review of the handling of the Alton Gas file**
- 3. Honour the Treaties and do not allow deleterious substances in water frequented by living creatures.**

It needs to be noted that Environment and Climate Change Canada regulates effluents for industries such as pulp and paper and mining operations. These regulations allow pollution to be discharged into the environment under some circumstances. Alton Gas does not fit the criteria to become a regulated industry. Regulated industries are not safe for the Environment. As we see our environment suffer and more species being added to the SARA list it is time to act. Government has made commitments to do more to protect our precious ecosystems. When ecosystems such as rivers and oceans are allowed to be harmed it directly affects Mi'kmaq Treaty Rights to fish and hunt. We look to Pictou Landing and the people who have to live near Northern Pulp. The situation has been devastating to the environment and the health of the people. We cannot afford to make another mistake like that. No level of pollution is acceptable. We are confident that if a proper review is done regarding Alton Gas by Environment and Climate Change Canada the project will not make the criteria to become a regulated industry. The Province needs to suspend the permits today.

Indigenous and non-Indigenous people depend on a functioning environment as the basis of our well-being. The Government needs to do better to protect rivers such as the Shubenacadie River. Healthy rivers help to sustain the environment and promote healthy fish populations. We need to protect them. Unfortunately, Nova Scotia has a long history of allowing environmental catastrophe with profound health and social impacts on communities including Boat Harbour, the Sydney Tar Ponds and others. Together we can make change and protect the environment for future generations.

# DESCRIPTION OF THE ALTON GAS PROJECT

Alberta-based AltaGas's Alton Gas is an underground natural gas storage project. The project consists of three main aspects.

Alton Gas plans to drill approximately 1,000 meters underground to access large natural salt deposits. The salt formations are in the community of Brentwood, Colchester County, Nova Scotia – about 10 kilometres northeast of the community of Stewiacke. This is where the natural gas facility will be located.

The second aspect of the project requires a brining facility to 'solution mine' the salt and trace minerals to form the caverns. In order to create the caverns in the ground they must remove the existing salt and minerals to provide room for the natural gas. This is done by drawing water from the Shubenacadie River and piping it to the cavern site where it will be used to solution mine salt and trace minerals. Solution mining is one method used to extract salt resources. The resulting 260ppt full strength brine will then be piped back to the Shubenacadie River and discharged into a man-made open channel diverting a significant part of the natural river flow. No attempt to recover the salt from the solution is planned by Alton Gas.

The third part of the project is connecting the cavern site to the Maritime and Northeast Pipeline natural gas pipeline.

See the following page for a graphical explainer of the project and associated issues.

**1** **Shubenacadie River**  
This river is on Unceded Mi'kmaq Territory and is protected by Treaty Rights that have been in place for hundreds of years and have been affirmed and reaffirmed by Canadian courts.



**2** Any activity that impacts the Shubenacadie River violates the Treaty Rights of the Mi'kmaq People.

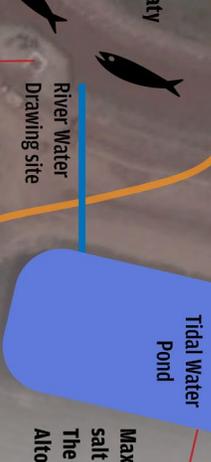
**3** **Species at Risk:**  
– Inner Bay of Fundy  
– Atlantic Salmon  
– Striped Bass



# Respect Water, Respect Life – STOP ALTON GAS

**Treaty Truckhouse**  
Free flowing to the river (fish can enter and exit the channel completely unhindered).  
"Mixing Channel"  
Brine dumping site  
10,000 m<sup>2</sup> per day  
260 ppt

Brine dumping site  
10,000 m<sup>2</sup> per day  
260 ppt



**4** By law, deleterious substances cannot be deposited into a place where fish frequent as per sections 36(3) of the Fisheries Act (1985)

Maximum river salinity is about 2.8‰ salt  
The full strength brine produced by Alton Gas will be 26‰ salt

**5** Before the province of Nova Scotia can issue an Industrial Approval, which is the final regulatory hurdle, the Province is responsible for confirming and documenting that the Minister's Terms and Conditions of the Environmental Assessment are in compliance – Including condition 2.1(b).  
**6** On December 18th, 2007, the Province of Nova Scotia granted an Environmental Assessment approval to Alton Gas with specific terms and conditions (safeguards), which have not been met.

**7** 2.1(b) – "A program to monitor discharge salinity into the estuary to ensure no negative impacts to fish species result. This program should be developed in consultation with Environment Canada"

Alton can produce no evidence that this condition was met.  
If Nova Scotia Environment had ensured this requirement was satisfied, they would know that the brine is a deleterious substance and any release of brine into the Shubenacadie River illegal as it contravenes the Fisheries Act.



**8** "Human activity should not cause the salinity of marine and estuary water to fluctuate by more than 10% of the natural level expected at that time and depth" (Canadian Water Quality Guidelines for the Protection of Aquatic Life – Canadian Council of Ministers of the Environment, 1996)

This guideline will be violated by dumping brine, as the full strength brine (260 ppt) is 920% saltier than the maximum river salinity (28 ppt) and the amount of brine is enormous – 10,000m<sup>2</sup> / day. A single cavern will lead to 500 000 tonnes of salt dumped in the river.



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The Alton Gas Project and associated issues for fish and fish habitat.