

# **It is Black and White: No More Compromises! Keep the SRKWs Alive!**

**Lifeforce Ocean Friends' Recommendations to the Governor's Orca Task Force**



**This photo of J49 who still survives with his mom was taken by Lifeforce on his first sunset in 2012.  
But the SRKWs and others will be lost if immediate actions are not implemented NOW!**

**Lifeforce Ocean Friends  
October 13, 2018**

# Lifeforce Orca Friends' Recommendations to the Governor's Orca Task Force

## Introduction

Lifeforce is a Canadian based non-profit ecology organization created in 1981. Our Ocean Friends projects initially started as Marine Life Programs in 1993. This important volunteer work includes: 1) Lifeforce Founder, Peter Hamilton, studies behaviour and travel patterns of humpbacks and orcas. 2) The Lifewatch Boater Awareness helps educate boaters about Marine Mammal Regulations and safety for both people and the whales.

Lifeforce has been with the J, K and L pods since 1993. But that was 25 years of government failure to protect them! Now the time that we had for hope for their survival is quickly running out. They may well become extinct unless endangered species laws are immediately implemented in Canada and the US. This must include moratoriums on fishing to rebuild the broken ocean food chain, stopping the causes of environmental pollution, increasing enforcement of boat traffic laws and banning aquarium imprisonment under the guise of "education" and "conservation research".

**It is Black and White: No More Compromises! Keep the SRKWs Alive!**

More information: <https://www.facebook.com/Ocean-Friends-1442963759271400/>

Washington Governor Inslee's Southern Resident Orca Task Force has received actions to recover southern resident orcas. The draft recommendations were generated by the *three Working Groups looking at Lack of prey; Toxic contaminants and Disturbance from noise and vessel traffic.*

This is great news but there are in fact 4 main threats to the SRKWs. The 4<sup>th</sup> was and still is Aquarium Captures. The orca captures were started by the Vancouver Aquarium in 1964 and continues to have a major impact because it takes over 50 years to try to correct the resulting abnormal age and sex ratio. The 68 young orcas and the unreported others who died during captures were mostly from the SRKWs. A generation was lost.

A Fourth Working Group: Ending Aquarium Captivity for Entertainment and Experiments must be immediately formed.

## The 10 Lifeforce Recommendations

Lifeforce urges the Governor and this Task Force to implement the following recommendations to truly help stop the extinction of the SRKWs:

***1. A Fourth Working Group: Ending Aquarium Captivity for Entertainment and Experiments must be immediately formed with the goal to: Prohibit all aquarium captures and permanent confinement of orcas.***

***There should no excuses to keep imprisoned "rescues" as "non releasable". Also, any future captive orca recovery business plans must not be permitted. We must learn from the recent failed attempt to capture and breed endangered Vaquita in captivity!***

***Sea World funds NOAA and participated in the decision making of the J50 plans. This certainly raises the issues of bias and conflicts of interests. There are organizations that are not part of the aquarium industry that should be working partners in these cases not Sea World and other vested interests.***

***The use of sea pens should only be used for lone orcas after all efforts have been made to reunite with family or others. There are government agencies, rescue organizations, non profit organizations and others who are capable of providing such temporary rescue work. Absolutely NO aquarium transfers and long term imprisonment should be condoned!***

## Background

In addition to lack of food, boat traffic and pollution there is in fact a 4<sup>th</sup> main threat to the SRKWs. The orca captures were started by the Vancouver Aquarium in 1964 and continues to have a major impact because it takes over 50 years to try to correct the resulting abnormal age and sex ratio. The 68 young orcas and the unreported others who died during captures were mostly the SRKWs. A generation was lost.

Are aquarium captures over? Worldwide it continues and the Vancouver Aquarium also manages an aquarium in Spain. The Vancouver Aquarium has a breeding program with Sea World and many have died in the process. Both claim it is necessary to keep orcas in captivity. One must look at possible conflicts of interest as Sea World provides funding to NOAA and recently had their veterinarian be an advisor regarding the medical experiments on dying J50.

## Vancouver Parks Board Cetacean Captivity Bans

In 2017 the Vancouver Park Board amended the Cetacean Bylaw to permanently stop cetacean captivity. However, the Vancouver Aquarium (VA) said that they will fight to keep who they claim are “rescues” from across Canada who cannot be released. The VA said that their veterinarian does not make the final decision. However, DFO did not provide Lifeforce with any information about any review committee.

The VA said that they would keep cetaceans until they find another aquarium due to the Parks Board Cetacean Ban. This has been a free wildlife market for aquariums and zoos for decades. As long as the aquarium industry is allowed to get a free source of cetaceans the “entertainment” and research businesses will continue. This could include orcas, narwhals and others for aquariums worldwide! Bear cubs were sent to international zoos against opposition but fortunately are now rehabilitated and released. (Note: The proposed Canadian cetacean ban presently also could permit this loophole.)

## The Failed Vaquita Captive Breeding Attempt!

[Endangered vaquita porpoise dies in captivity - The Telegraph https://www.telegraph.co.uk > News](https://www.telegraph.co.uk/news)

## 2. Stop Boat Traffic! Including Research Boat Traffic!

**Implement a Moratorium on Whale Watching the SRKWs. This should include all eco tours, research and private boater traffic. The company and research vessel ban would also help reduce the traffic by private boaters from locating the orcas and copying the close approaches by companies and research vessels (see more information in Recommendation #7).**

## Background

Marine Mammal Regulations have recognized that public boaters cannot determine the difference between Southern Residents, Northern Residents and Transients. Boat distances and other protection measures applied to all. Therefore, further restrictions must apply to other orca ecotypes.

Other ecotypes are threatened by the same main impacts on the SRKWs. They Are Not Thriving! As claimed by whale watch companies and others. NRKWs are estimated at only 309 members. Between 1998 and 2001 there was a decline due to the lack of salmon. There are only approximately 300 Mammal Eating Transients from California to Alaska.

Alarm Bells should be heard and quick responses taken if a population declines below 1000 members. Lifeforce raised the question in the 90s that if we are fighting to protect at that time the 500 belugas in the St. Lawrence and 300 Right Whales on the East Coast why are we not doing anything for the orcas? Now the present 800 belugas and 500 Right Whales have increased protection in Canada. So include the all orca ecotypes!

Full protection is necessary especially in view of the plight of A pod and their boat injuries (3 severe hits in one family alone!). Food for both the NRKWs and the Mammal Eating Transients are also highly polluted with mercury, PCBs and many other toxins. This is certainly a probable deadly impact on their future survival as well.

Protective measures for all should start now!



### Severe injury from boat propellor

N. Resident A109 (aka Eliot, Born 2014)

May this lead to greater awareness.



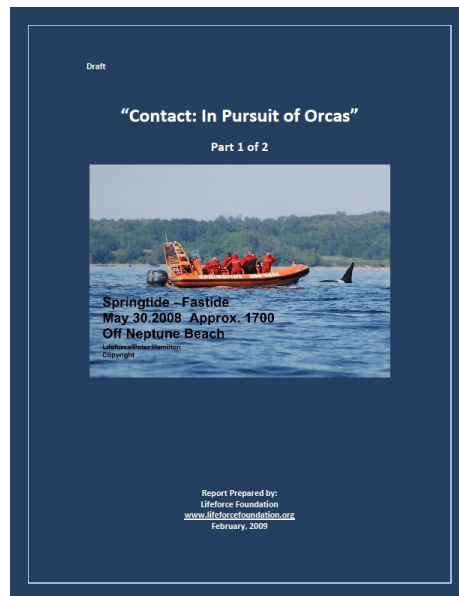
### 3. Eco Friendly Whale Watch Companies? An Orca Retirement Plan?

A licensing system must limit the number of whale watching vessels. Adherence to Marine Mammal Regulations and safe operation around orcas that includes the understanding of orca behaviour still continues to raise concerns. Training of whale watching staff must also include learning about wildlife ethics, animal rights and speciesism (stopping operators' callous jargon such as "Let's round them up").

#### Background



Since 1993, the Vancouver-based ecology organization, Lifeforce, has conducted the Lifewatch Boater Awareness program to monitor boat traffic and the impact on endangered orcas. Our 2009 report, "Contact: In Pursuit of Orcas" exposed the numerous issues with the whale watching industry in Southern BC and WA. That included all the tricks of the trade such as positioning ahead of orcas in their pathway and saying, "They came over to say Hi!" Our work has helped to get increased protection and enforcement in the US. Why are the orcas threatened? It was the years of continuous boat traffic interrupting their lives and foraging!



Over the years, Lifeforce made several recommendations such as the 200 - 400 yard boat distances, No Go Zones, 30 minute limits with limited boats, Orca Days Off, limited daytime only viewing only, "How's My Driving?" boat posters giving customers information to know if the company and other boaters are in violation, taking customers to land and/or water based sites and no tours in limited visibility such as fog. The Pacific Whale Watch Association had opposed all of these changes. They still continue to claim that it is not them at fault and that the orcas just need more salmon."

Even these increased protection measures will not now solve all the problems. For example, orcas can detect specific boats. So when they even hear boats approaching that have harassed them they will get defensive. This would cause stress and interfere with behaviours such as foraging. If proper measures were taken during the past 25 years it may not be the last hope for orcas. Presently, due to the present excessive number of industry vessels and further boat traffic (including research boats, fishing vessels, and private boats) immediate action is absolutely required.

Over a decade ago Lifeforce had hoped to create eco friendly whale watching in BC and WA creating a worldwide model. I attended the annual whale watch industry meetings. This worked well. For example, the "fleet" agreed to all line up on one side only and not coral the orca, stay 400 meters away if there were babies, and other protective operations. However, Lifeforce does recommend that enforcement of regulations is done by government agencies not public organizations.

**The Good and the Bad**

Some companies said that our Orca Field Guide (based on my studies in part conducted under a DFO research permit) and Guidelines/Commonly seen species were the best they've seen and donated. However, other companies used and reprinted Lifeforce copyrighted photographs and information for their advertising without permission or any donation and support.



**Can Everyone Work Together Now?**

Perhaps companies will change but if not to truly protect the SRKWs then to protect their multimillion businesses. Either way that may help orcas.

When I was doing the volunteer Lifewatch Boater Awareness in the Vancouver and San Juan Island areas some companies were verbally abusive, told us to "you better leave or else" and physically threaten us by waking our little 18' boat.

Everyone who can now help save the SRKWs should adhere to Lifeforce's "A Respect for All Life" motto. Some companies do. We would hope that all companies claiming that they respect wildlife would include a respect for volunteers who had to monitor boat traffic.

**4. Stop Starvation!**

*In order to get food for the starving orcas there must be minimum 5 year fishing moratoriums on salmon, herring and other species. The big fish eats the little fish to survive! The Ocean Food Chain is broken! Implement Moratoriums to Save Fish Now or Lose Them Forever! Remove the Dams! Protect Habitats!*

**Background**

Now orcas are being exploited by the fishing industry claiming that seals and sea lions must be killed to save the salmon! Who is really responsible for devastating the fragile ocean food chain? Was it humans or wildlife? History would prove that it was humans. We all must mend the broken ocean food chain!

Who else do you kill besides the seals and sea lions? Do you kill all the other fish eaters such as herons, eagles, bears, dolphins, porpoises, and whales?

Humans have the choice to go to grocery stores while wildlife does not have choices. Plant based fish products can replace wild fish as being done with other "meat" habits.

Salmon and other fish habitats have also been destroyed by whale watch companies also running fishing charters, human development, animal excrement from factory farming, slaughter house wastes (ex. Liferforce found a former one in Victoria, BC dumping the bloodied wastes into a salmon stream), fish farming, logging, treating the oceans as a garbage dump, dumping human sewage into the water ways and oceans, oil "spills" and so on.

Time to give wildlife their "quota" since the growing human populations have plundered and devastated more than their share. In order to "Save the Orcas" emergency actions must be implemented immediately under the Species at Risk Acts! This must include minimum 5 year moratoriums on Commercial, Sport and First Nation fishing!

### **5. Increase Boater Awareness Education! Increased Enforcement!**

*The public, industries, aquariums/zoos and others must be better educated! Training by marine associated businesses and associations must include Marine Mammal Regulations and how to properly operate boats for the safety of both orcas and people.*

*Increased government enforcement must include orca protection groups (such as Soundwatch and Straitwatch) stopping boats from driving over orcas by using a work zone type SLOW/STOP paddles when boats are hard to intercept and No Go Zones. Example: It is basically impossible to follow regulations in most areas of the Canadian Active Pass.*

### **Background**

The public, industries, aquariums/zoos and others must be better educated! Training by marine associated businesses and organizations must include Marine Mammal Regulations and how to properly operate boats for the safety of both orcas and people. Liferforce has urged DFO to mail such brochures to all marinas and related businesses. Liferforce had previously published and distributed similar education cards. US agencies should also do so.

Sea Worlds, Vancouver Aquarium and others continue their harmful education messages such as swimming with orcas, kissing belugas and sea lions, etc. This "get up close with nature" is harmful to both wildlife and people. Over the years Liferforce have had to stop boaters from copying this irresponsible "conservation education" when they try to swim with wild orcas. It happened recently this summer with the lone orca in Comox Harbour, BC.



Liferforce started Lifewatch in 1993 to monitor boat traffic from Vancouver to the Gulf Islands to the San Juan Islands. Our work led to fines against whale watch companies and private boaters. It also led to stronger regulations and government enforcement in the US and now finally in Canada. We wrote the first "Guidelines" for Southern BC and WA. We also developed more effective tools to stop boats from driving over orcas by using a construction zone SLOW/STOP paddle (see photo) and telescopic poles to disperse education materials to boaters on the water.

### **Slow Zones and No Go Zones**

In addition to ferries, Active Pass was always a serious problem due to the numerous private boats, whale watch companies, and other commercial vessels. Most of the times there were no places for orcas to even escape from ferries. It is basically impossible to follow regulations in most areas of Active Pass. At one point whale watch companies agreed to not enter the pass when orcas are transiting through. Companies could watch them on the west side as they funnelled through (but not on the east side because that is where they spread out).

In order to reduce the risks Active Pass and other similar locations should be No Go Zones!

## **Increased Government Enforcement**

Lifeforce and others helped the WDFW increase their enforcement by having a designated "Whale Cop". The DFO said that they will be hiring more officers to do whale protection enforcement.

Increased education must also include information to the public as to how to gather evidence to report boater violations. For example, video is preferred over photographs, boat registration and accompanying detailed notes is advised. The SRKWs and others would definitely benefit from increased enforcement by governments and detailed public reports.

## ***6. Call Them! Don't Bomb Them! Stop Noise Pollution!***

*The use of passive orca playbacks must be a priority for oil spill responses NOT seal bombs and other possible harmful methods presently listed as priority government response methods. Playbacks, developed by Lifeforce, can attract orca pods away from oil spills and other dangers.*

## **Background**

### **Lifeforce Research and Passive Playback Methods**

Lifeforce had conducted our education and research work in the Point Roberts area for over 15 years. One night Peter Hamilton saw some of the resident orcas pass Point Roberts and then heard on the radio the next morning that they had headed into a Cherry Point oil spill. He always thought that playbacks could be used to attract orcas away from oil spills. Lifeforce bought the equipment to be prepared for such a disaster.

One day the Southern Resident Killer Whales (SRKWs) had passed Point Roberts and headed south to East Point. After they had passed Point Roberts he tested the clarity of the underwater playbacks on the new equipment. He saw that many miles in the distance it appeared that the SRKWs changed direction and were heading back north towards the Lifeforce sound source. When he saw them surface again several miles away he turned off the equipment and removed it from the water. They continued to approach the boat and continued heading all the way to the Fraser River in search of the "sound source".

### **The Lone Orca in Comox Harbour**

During July 23<sup>rd</sup> to August 3<sup>rd</sup> a lone orca stayed in the Comox Harbour, BC. I advised DFO that sound playbacks should be used to get T073B out of the Comox Harbour. I told them that I was invited by NOAA to discuss this at an "oil prevention" meeting in 2007. It was considered a possible oil spill response and Lifeforce was listed as a resource.

I suggested that in order to attract this lone orca that there should be one playback unit near the Harbour entrance and then another further out (both would be turned off and removed as he approaches so he would continue his search). As we saw this method was successfully used to protect the orca and public safety.

### **Lifeforce Research**

Over 15 years ago, Lifeforce's Peter Hamilton was one of the few people who conducted research and had firsthand experience regarding the positive effects of passive sounds to attract orcas. His initial goal was to attract orcas away from environmental hazards such as oil spills.

His publication entitled "Oil and Chemical Resistant Whales, Otters and Birds?" was presented at the 27th Arctic and Marine Oil Spill program (AMOP) Technical Seminar, the 21st Technical Seminar on Chemical Spills (TSOCS) and the 6th Biotechnology Solutions for Spills (BIOSS), June 8 to 10, 2004.

In October 2007 Lifeforce was invited to a National Oceanic and Atmospheric Administration (NOAA) meeting about "Oil Spill Emergency Responses" to discuss his findings.

### **Current Oil Spill Responses**

Previously Hamilton's research into the use of passive playbacks was not considered by the US government as a priority for oil response. NOAA listed priorities such as seal bombs, helicopters and banging pipes called "oikomi" by Japanese dolphin herders.

At the NOAA meeting in 2007 a former aquarium orca capturer said that their use of seal bombs probably resulted in their deafness. He advised not to use seal bombs. In addition, since dolphins are highly sensitive to sounds such as the "oikomi" banging of pipes that is highly stressful dolphins have went into shock and beached.

Now it has been demonstrated that it is highly effective for attracting orcas out of dangerous situations. There are now four examples proving that it gets the response needed. First there was John Ford's accidental playback. Secondly an unpredicted attraction while Lifeforce was testing our new playback equipment. Thirdly DFO attracted a lone, younger orca. Then the fourth example was attracting T073B out of Comox Harbour. No further research is needed because it works and more research may only habituate some orcas making it ineffective.

With the possible loss of orca populations the time has come to treat all orcas with respect. They are being studied to death. Methods to protect them must now be passive and benign. Lifeforce urges that playbacks will be a priority to be used for oils spills and other environmental hazards to save orcas and even other species. Lifeforce will be recommending to Canadian and US governments to Call Them! Not Bomb Them!

### **7. Disturbances from Other Noise Sources**

*As further outlined in Recommendation #10 there should be joint discussions between the US and Canadian governments for matters that impact the SRKWs in each country. This would include the Navy/Armed Forces tests that include detonation of bombs, Seismic Testing, Marine construction that includes pile driving (such as the dock at Point Roberts,WA), Fireworks displays, Film crews, Boat regattas and other potentially harmful activities.*

#### **Navy Tests off Victoria, BC**

<https://vancouversun.com/news/local-news/victoria-whale-watchers-cry-foul-after-navy-sets-off-explosive-near-orcas> and <https://www.timescolonist.com/news/local/navy-and-victoria-whale-watchers-hit-more-rough-sea-1.22369457>

#### **Seismic Testing**

In May 2002, the USGS was conducting seismic tests using an air gun array in the Salish Sea. They called Lifeforce every morning to determine the area(s) less likely to encounter SRKWs. There was one close call in Rosario Strait where they were thinking about going to but changed location due to my knowledge of orcas there. In order to provide such information it involves consistent tracking during the daytime and last locations at night.

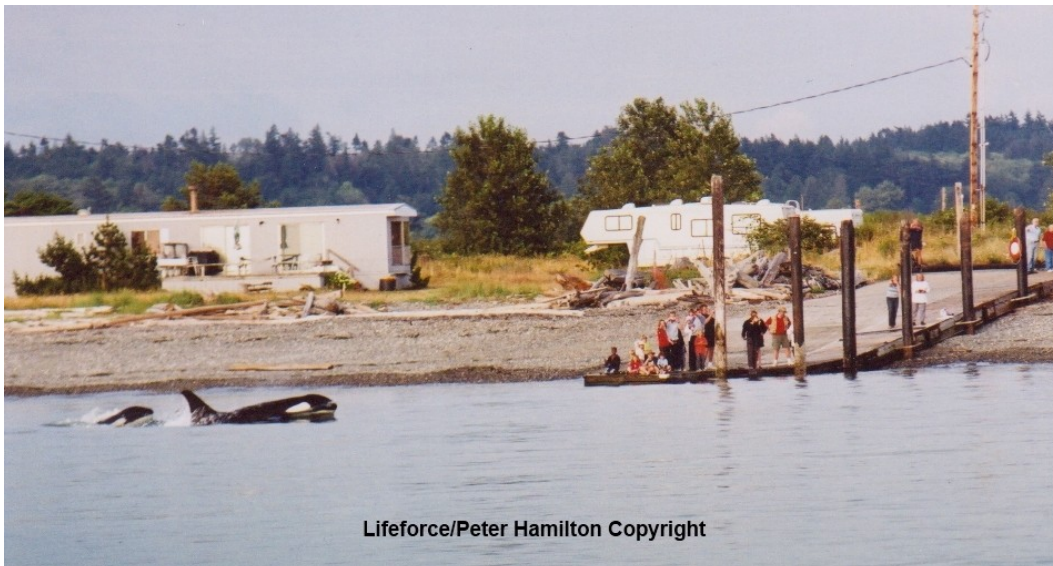
The Canadian operation conducting seismic testing ignored Lifeforce alert that SRKWs were coming out of Active Pass and approaching the area where they were testing. Their response was that it is a big ocean and they could go somewhere else if it bothers them.

#### **Pile Driving such as at Point Roberts Dock**

In 2013 there was planned pile driving in the SRKWs critical habitat off Lighthouse Marine Park, Point Roberts, WA. In order to prevent possible harm to the endangered orcas Lifeforce tracked the Resident and Transient movements from Sunday September 29 to Thursday October 3.

Orcas have spent up to 1 hour socializing and feeding just off the boat ramp where the pile driving is planned. They have passed up to 4 times in one day. On September 9 they passed 3 times. (See photo). Harbour porpoises are frequently just off shore. There are also seals, and sea lions.

Lifeforce had offered to provide orca location information as we did with USGS but a Whatcom County official said that they will have a staff member look for orcas from the park location only. That would have been too late if the orcas did pass by during the pile driving!



Lifeforce/Peter Hamilton Copyright



## Fireworks

On several occasions the SRKWS would travel to Vancouver Harbour at the time of Fireworks competitions. Sometimes this presented a double threat as were numerous boaters and whale watch companies.

More recently there was an upcoming fireworks and races scheduled in Comox Harbour where the lone orca was staying. Fortunately DFO used the passive playbacks to get the orca out before the Fireworks and boat races began. Here is the information that Lifeforce sent to DFO, Comox City Council, Event Organizers and others.

Re: Comox Festival of Lights Poses a Threat to the Lone Orca and Boaters

The Quality Foods Festival of Lights on August 6<sup>th</sup> in Comox Marina Park will bring a large number of boaters into the Comox Harbour where there has been a lone orca known as an Alaskan/BC/WA 27 year old Transient T073B present since July 23. There has been numerous violations of boater harassment reported to DFO already and this event will increase the threats to this orca and the boaters. DFO enforcement is now present.

Recently New Zealand postponed their fireworks display because there was a lone orca in their harbour. <http://www.dailymail.co.uk/wires/afp/article-5924591/Frolicking-whale-halts-New-Zealand-fireworks-display.html>

## Film Crews

On one occasion, Lifeforce had to inform a Cousteau film crew that while in Canadian waters they need a permit for the close approaches that they were conducting. Lifeforce has stopped numerous other boaters from approaching too close to get photos.

## **8. Stop Invasive Experiments that Resulted in the Death of a SRKW! Stop Research Boat Traffic!**

*Sentient, endangered orca families must not continue to be treated as research tools. They are being studied to death and it must stop! Research vessels drive right over orcas and get within meters. And Private boats find the orcas and copy the research boats! Boaters would even asked Lifewatch why do they get so close.*

*The cumulative impacts from non invasive research must also be assessed. This would include collecting breath samples, scat samples, and other studies that may presently include extremely close approaches to SRKWs to attach suction cup tracking devices (<https://www.hakaimagazine.com/news/what-do-killer-whales-do-at-night/>)*

## Background

A dart tracker caused an infection that led to the death of an endangered SRKW. There is no need to use dart trackers because a vast system of hydrophones are presently in the oceans that can track orcas. Skin biopsies can also open pathways for life threatening infections. Adverse impacts from shooting them include slight to strong reactions! This included “quivering” with fear! On one occasion was there evidence that non-targeted whales were influenced by the darting of a group member. Two mature males gave distinct shakes when a female approximately 20 m from them was hit with a biopsy dart. The female was believed to be the mother of both males.

<http://www.zoology.ubc.ca/~barrett/documents/LBLPhDThesis.pdf>

More info about the satellite “tags” and skin biopsies: <https://www.change.org/p/these-sec-doc-gov-stop-barbaric-orca-satellite-tags-and-skin-biopsies>



## ***9. Stop Further “J50” Failed Experiments! Let K25 and His Pregnant Sister Be!***

### **Background**

#### **Lessons to Learn? Will Orcas Continue to Die?**

J50 was gravely ill and was dying. She and her family should have been left in peace not chased by boats, shot with darts and subjected to other failed experiments.

Lifeforce had urged DFO and NOAA to not put any antibiotics into the salmon because the salmon cannot be targeted to be consumed by only J50. The risk to J50 is an issue but the risks to all resident orcas must not be allowed. Also, any direct use of antibiotics must be determined after the test results determine the best type for the specific health issue(s). However a general type was used. As we know there can be severe adverse reactions in humans and overuse has led to types becoming ineffective to “Super Bugs”. Do we want to start in marine wildlife too! Antibiotics could also cause deafness in marine mammals!

A Sea World veterinarian was an advisor with the J50 experimenters and NOAA receives money from Sea World. The Vancouver Aquarium, who breeds belugas with the Sea Worlds, has made it perfectly clear that they want to keep “rescued” cetaceans and supply them to aquariums worldwide. Both of them claim that captive orcas are necessary for education and research. (See also Recommendation #5 Education) Aquariums captured a generation of young orcas that continues to devastate the SRKWs that was started by the Vancouver Aquarium. We must not let them now keep “rescues” under the guise of conservation.

The Springer case was not the same as the dying J50 Scarlet who was with her family. Springer somehow got separated from her family. She needed some care and help to be transferred back to her northern home waters and family. The Vancouver Aquarium had even tried to keep Springer in a sea pen at their research station near Vancouver. They asked if Lifeforce would support it. I told them No! The plan must be for her to be return to northern waters where her family lives. The US team did that and she immediately was reunited!

Now researchers say 27-year-old male K25 is thinner now than in previous years. The trouble for the whale likely started last year when his mother died, scientists from NOAA Fisheries’ Southwest Fisheries Science Center said. However there are 3 pregnant orcas now. One is K25’s sister. Government researchers said they may intervene! This must not be allowed because it would cause major stress harming their health, interruption of foraging and lifestyles and threaten the pregnancy of all three pregnant SRKWs who travel together at times.

The Southern Resident Killer Whales (SRKW) must not be treated like lab guinea pigs that can result in unknown threats to them and others. If there ever was a proven need to get close to a sick orca then just park the team ahead of them with engines off as they pass by. No more stressful experiments that can do more harm than good!

## ***10. There must be Joint Canadian and US Environmental Impact Studies/Legislation/Treaties for the Protection of Transboundary Species and Shared International Waters! Save the Orcas, Salmon and Everyone!***

### **Background**

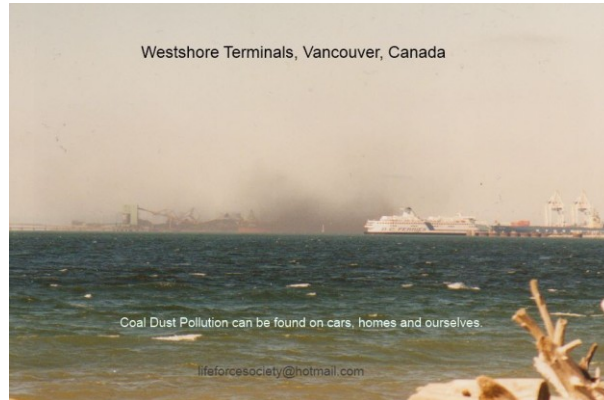
Some of the major developments that have been and would have a high risk impact on SRKWs and others are the extensive Delta Container Port expansion, the Westshore Coal Terminal 40 Year Plan, Kinder Morgan Pipeline (with the increase of tanker traffic of up to 400 vessels annually and a recent proposal to move the Burnaby plant to Roberts Banks) and the massive northern LNG plant.

In addition, the decades of dumping raw sewage off Victoria, BC in the travel route of the SRKWs certainly must have had negative health impacts. Finally a sewage treatment plant is being built, but there is still the potential risks from the Iona sewage treatment plant and others regarding the level of treatment. There are numerous other industries on both sides of the borders that continue to dump and/or have contaminated sites that destroy salmon streams.

Other joint issues must include Navy/Armed Forces exercises and other noise impacts (see #7) and Pollution impacting salmon habitats (See #4).

Any move of the Burnaby oil plant to Delta would basically cover and destroy all of the precious wildlife habitats. See <https://www.straight.com/news/1141536/assembly-first-nations-national-chief-wonders-if-trans-mountain-pipeline-could-end>

The Westshore Coal Pollution Terminal 40 Year Plan is an expansion of increased activities. This would continue the ongoing air and water pollution.



Since 2005, the ongoing plan to expand the Container Port has been under Canadian environment reviews. This was stopped years ago as deemed by Environment Canada. They stated, "If it does occur, the state of eutrophication is predicted to result in such massive environmental change between the causeways that there would be public outrage as well as agency embarrassment at an international scale, not to mention the loss of productive habitat for a very large and diverse assemblage of biota."



**From a Lifeforce Response to Environment Canada:**

Since 2005 Lifeforce has contacted Provincial and Federal Governments to support thorough environmental studies. On behalf of the Lifeforce Foundation I support a full environment impact assessment based on:

1. Previously the Environment Canada's response to the Canadian Environmental Assessment process criticizes the expansion at Delta Port marine container facility. The report stated: "EC has adopted the position that the risk of eutrophication within the inter causeway cannot be dismissed. If it does occur, the state of eutrophication is predicted to result in such massive environmental change between the causeways that there would be public outrage as well as agency embarrassment at an international scale, not to mention the loss of productive habitat for a very large and diverse assemblage of biota."
2. The proposed expansions of the Vancouver Port Authority facility at Roberts Bank will result in the loss of precious marine habitat, essential for a diversity of animals, birds and fish. Increased vehicle and ship traffic will also have many negative effects on this sensitive ecosystem.
3. For over a decade Lifeforce has studied the behaviour and travel patterns of the Southern Orca Community. Some of these studies were conducted under a DFO research permit. These orcas have been designated as an endangered species. The area where Deltaport is located is a very important habitat for them and must be protected for their survival. During most of the year J pod travels in these waters. From approximately May to October, J pod is joined by K pod and L pod. Other threatened populations of orca and marine mammals are also found in this area.

The negative impacts on endangered orcas include: lack of education of ship operators when orcas are present that can result in stress, ship strike and possible injury/death; construction noise that would interrupt their lifestyles and could

cause fatal injuries (such as hearing trauma); release of contaminants during construction affecting their health; increase of ship traffic resulting in noise and water pollution that can lead to poor health/death; and long term impacts that can affect food availability and the orcas' historic use of this habitat.

Ship pollution problems sent to Delta Port and Westshore Terminal from Lifeforce have not been fully answered. The cumulative impact of these two industries and the ferry terminal all in the same fragile ecosystem must be addressed.

**The further need for such joint environmental reviews is shown with the example of Teck Mines**

In early 2012 Teck donated \$12.5 million to the Vancouver Aquarium. It was reported as a 6 year expansion plan. The previous 2006 expansion money raiser failed and did not achieve their goal to open for the 2010 Olympics. Note: This expansion still is continuing.

Teck has a toxic legacy in the Trail area and have been criticized for violating environmental laws. According to Wikipedia they contaminated the Columbia River in 2003 and 2008. Their Red Dog mine in Alaska has been ranked by the US Environmental Agency as one of the most polluting facilities in the US. They also operate in the controversial Alberta oil sands.

On December 14<sup>th</sup> Teck was found liable for polluting the Columbia River:

“Teck Resources treated the Columbia River as a free waste disposal system for decades,” said a Washington state judge who has ruled the Canadian company is liable for the cost of cleaning up the contamination of the river south of the border. [http://www.huffingtonpost.ca/2012/12/14/teck-columbia-river-cleanup-washington-bc\\_n\\_2304478.html](http://www.huffingtonpost.ca/2012/12/14/teck-columbia-river-cleanup-washington-bc_n_2304478.html)

**International Waters At Risk!**

Single and cumulative impacts would basically destroy wildlife habitats, break the ocean food chain and present long term risks to the SRKWs. There must be a review of all applications through joint environmental impact studies. There must be joint US and Canadian Treaties and Legislation!



For further information: [lifeforcesociety@gmail.com](mailto:lifeforcesociety@gmail.com)

**Save the Orca Families Now! Petition**

<https://www.change.org/p/join-us-in-asking-johnathan-wilkinson-catherine-mckenna-marc-garneau-and-justine-trudeau-to-save-the-orca-families-from-extinction>

Lifeforce has been fighting to save these orcas from extinction since 1993. Everyone can contribute to protecting these orcas by signing and sharing the petition and through making a donation to [Lifeforce Foundation](#) through [Paypal](#).

<http://www.lifeforcefoundation.org/support.php>