



# MOWI

July

Mortality per Cause

Defarm 1993  
Fresh 100  
Samples 21

Object Name	From date	End date
Bell Island	01/07/2024	09/07/2024

SELECTION

Pen Name	Env- Algal blooms	Mouth Myxobacteria	Without diagnosis-decompo	Poor performers - runts	Other non-infectious caus	Non Top 5 Reasons	Total Pr Pen
MBI-Bell Island(BI01)	15 088	2 580	2 091	649	637	315	21 360
MBI-Bell Island(BI02)	11 012	1 773	1 331	605	767	329	15 817
MBI-Bell Island(BI03)	11 947	2 241	1 447	1 591	982	299	18 507
MBI-Bell Island(BI04)	12 305	1 725	1 663	561	275	98	16 627
MBI-Bell Island(BI05)	13 673	2 082	1 842	799	13	25	18 434
MBI-Bell Island(BI06)	10 413	1 099	762	374	1 162	588	14 398
MBI-Bell Island(BI07)	11 708	2 181	4 283	1 222	338	163	19 895
MBI-Bell Island(BI08)	11 464	1 466	1 321	429	526	297	15 503
Grand Total	97 610	15 147	14 740	6 230	4 700	2 114	140 541

SCALE 50 | © Mercatus Farmer

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6.30 (0001)

Count 349,668

Average weight 341.53 grams

Biomass 119 tonnes

MTB 600 tons (19.90%)



# MOWI®

June

Mortality per Cause

Mech 75  
Proc Male 26  
Deform 511  
ONI 2273

Fresh 846  
Samples 80  
Concussion 213

Object Name	From date	End date
Bell Island	01/06/2024	30/06/2024

SELECTION

Pen Name	Env- Algal blooms	Without diagnosis-decompo	Mouth Myxobacteria	Poor performers - runs	Deformities	Non Top 5 Reasons	Total Pr Pen
MBI-Bell Island(BI01)	21 282	4 164	3 120	685	765	222	30 238
MBI-Bell Island(BI02)	36 912	4 975	4 394	3 070	1 749	2 366	53 466
MBI-Bell Island(BI03)	13 967	3 075	1 993	568	437	208	20 248
MBI-Bell Island(BI04)	11 604	2 284	1 690	804	274	154	16 810
MBI-Bell Island(BI05)	16 012	3 812	2 209	568	465	208	23 274
MBI-Bell Island(BI06)	8 542	1 964	1 255	606	279	129	12 775
MBI-Bell Island(BI07)	16 683	3 852	2 258	931	722	172	24 618
MBI-Bell Island(BI08)	11 502	2 155	1 318	512	420	54	15 961
Grand Total	136 504	26 281	18 237	7 744	5 111	3 513	197 390

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Page : 1 of 1

6.30 (0001)

Count **349,668**

Average weight **341.53** grams

Biomass **119** tonnes

MTB **600** tons (19.90%)



# MOWI

May

## Mortality per Cause

Mech 395

Gnilse 4

Failed smt 61

Transport loss 141

Fresh 641

Samples 43

Concussion 427

Object Name	From date	End date
Bell Island	01/05/2024	31/05/2024

SELECTION

Pen Name	Mouth Myxobacteria	Poor performers - runs	Env- Algal blooms	Without diagnosis-decompo	Deformities	Non Top 5 Reasons	Total Pr Pen
MBI-Bell Island(BI01)	227	522	720	287	205	201	2 162
MBI-Bell Island(BI02)	727	345	105	223	103	108	1 611
MBI-Bell Island(BI03)	277	637	743	346	254	200	2 457
MBI-Bell Island(BI04)	1 811	524	480	589	302	330	4 036
MBI-Bell Island(BI05)	257	505	647	383	231	217	2 240
MBI-Bell Island(BI06)	664	486	286	337	139	236	2 148
MBI-Bell Island(BI07)	359	820	883	474	338	328	3 202
MBI-Bell Island(BI08)	183	322	237	129	104	109	1 084
Grand Total	4 505	4 161	4 101	2 768	1 676	1 729	18 940

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6.30 (0001)

Count 349,668

Average weight 341.53 grams

Biomass 119 tonnes

MTB 600 tons (13.90%)



1 / 1

# MOWI

Mar - Apr

Mortality per Cause

Mech 83  
Deform 30  
Fresh 28

Concussion 65

SELECTION

Object Name	From date	End date
Bell Island	27/03/2024	30/04/2024

Pen Name	Transport losses FW to SW	Mouth Myxobacteria	Without diagnosis-decompo	Poor performers - runts	Failed smoltification	Non Top 5 Reasons	Total Pr Pen
MBI-Bell Island(BI01)	74		31	3	68	11	187
MBI-Bell Island(BI02)	148	355	236	88	6	135	968
MBI-Bell Island(BI03)	24		4	3	13	16	60
MBI-Bell Island(BI04)	53		1	13		1	68
MBI-Bell Island(BI05)	27			1	22	9	59
MBI-Bell Island(BI06)	9		18	15		23	65
MBI-Bell Island(BI07)	128						128
MBI-Bell Island(BI08)	6		5	18		15	44
Grand Total	469	355	295	141	109	210	1 579

SCALEAD | Mercatus Farmer

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6.30 (0001)

Count 349,668

Average weight 341.53 grams

Biomass 119 tonnes

MTB 600 tons (19.90%)

Date:	10-Jul	Time:	830
Tide	Depth	Count	Species
mid ebb	1	7	mixed chae
	5	6	convo
		11	Chryso
	10	7	P.Nitz
	15	0	0
	Tow	40 chains	mixed chae
Comment:	Lots of dinoflagulates in the water. Cage 1		
Morts:			

Date:	10-Jul	Time:	830
Tide	Depth	Count	Species
mid ebb	1	4	concov
	5	5	Chryso
	5	12	concov
	9	9	Chryso
	10	4	concov
	15	0	0
	Tow	40 chains	mixed chae
Comment:	Cage 2		
Morts:			

Date:	10-Jul	Time:	1:30 PM
Tide	Depth	Count	Species
	1	0	
	5	0	
	10	0	
	15	0	
mid flood	Tow	64	Concov/Convo
Comment:	9 chains of concav/convo		
Morts:			

Date:	10-Jul	Time:	4:45 PM
Tide	Depth	Count	Species
	1	0	
	5	0	
	10	0	
	15	0	
high tidw	Tow	125	convo / concav
Comment:	16 chains		
Morts:	7,444 fish for today		

[REDACTED] phone re 5 day ME Sheep Pass

Monday, July 15, 2024 3:42 PM

In response to confounding factors to MR with this ME:

- Calibration issues with medicated feed administration
- Poor response to tx
- [REDACTED] wonders if it could be ONI being mischaracterized?
- Extended MR tx to 14 day then even a few more days after
- Thinks maybe weren't eating well - could explain poor treatment response.
- Not sure that algae is much of a factor as not at danger levels (ER thought - could still be enough to tip over the edge though?)
- [REDACTED] heading out and will be onsite over next few days. [REDACTED]

Aside question from [REDACTED] - Bell fish dying a lot due to environmental event. Is there an emerg transfer approval process? I Advised her to email salmonITC inbox.

s.19(1)

s.20(1)(b)

**From:** Rutherford, Emily (DFO/MPO)  
**Sent:** Monday, July 15, 2024 7:21 PM  
**To:** Price, Derek  
**Subject:** FW: Bell Island Urgent Fish Transfer

**Importance:** High

Hey,

Just a heads up on a potential urgent salmon transfer that may be coming to us (you) while I am away. I just talked to [REDACTED] about it. **She said the fish are dying rapidly** and it has become about what is the best welfare move – get them out of there away from the algae (so they can treat for mouth rot etc) knowing they may not handle the stress of the move well, or **just leave them there dying**.

**This happened at bell in the past. The transfer was not approved.** I can try to find the Vet Review (I think Alex did it) and send it on too.

**Dr. Emily Rutherford, DVM (she/her)**

Field Operations Veterinarian - Pacific Region  
Fisheries and Oceans Canada | Pêches et Océans Canada  
**Cellular – (250) 299-6794**  
[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)

---

**From:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>  
**Sent:** Monday, July 15, 2024 4:16 PM  
**To:** [REDACTED]  
**Cc:** ([REDACTED] Rutherford, Emily (DFO/MPO) <Emily.Rutherford@dfo-mpo.gc.ca>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>; Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>  
**Subject:** RE: Bell Island Urgent Fish Transfer  
**Importance:** High

Hello [REDACTED]

Please send in an application for us to review with the information and in the meantime I will forward this email on to fish health.

We will be able to make a better decision once we receive the application.

Thank you,  
Deja

Deja Coupe (she/her)  
Governance Officer | Agent de gouvernance  
Aquaculture Policy | Politique de l'aquaculture  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Tel. | Tél. (236) 255-3461  
[deja.coupe@dfo-mpo.gc.ca](mailto:deja.coupe@dfo-mpo.gc.ca)

s.19(1)

*I respectfully acknowledge that I live, work and play on the traditional, unceded territories of the K'ómoks First Nation.*



Government of Canada  
Gouvernement du Canada

Canada

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**From:** [REDACTED]  
**Sent:** Monday, July 15, 2024 4:02 PM  
**To:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>  
**Cc:** [REDACTED]  
**Subject:** Bell Island Urgent Fish Transfer

**Good afternoon,**

I wanted to inquire about the likelihood of receiving an expedited transfer permit for fish at Bell Island on an urgency basis. The site has been experiencing unprecedented, prolonged periods of harmful Chaetocerus plankton species in the water column and we are seeing elevated mortality that has been persisting. We are struggling getting fish back onto feed due to these environmental conditions. Is there any chance of receiving an expedited process on a transfer permit to move these fish?

Thank you for your help on this matter.

**Cheers,**

[REDACTED]  
Kind regards,

[REDACTED]  
Mowi Canada West

Mobile: [REDACTED]

Email: [REDACTED]

s.19(1)

**From:** Rutherford, Emily (DFO/MPO)  
**Sent:** Monday, July 15, 2024 7:35 PM  
**To:** salmonITC / CITsaumon (DFO/MPO)  
**Subject:** RE: Bell Island Urgent Fish Transfer

Hi Deja,

If this urgent application comes this week, please include Derek in emails, as I will be away, and Derek will act on transfer reviews in my stead. I have already spoken to Howie about this transfer and given Derek a heads up.

Thanks,  
Emily

**Dr. Emily Rutherford, DVM (she/her)**

Field Operations Veterinarian - Pacific Region  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Cellular – (250) 299-6794  
[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)

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**From:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>  
**Sent:** Monday, July 15, 2024 4:16 PM  
**To:** [REDACTED] >  
**Cc:** [REDACTED] Rutherford, Emily (DFO/MPO) <Emily.Rutherford@dfo-mpo.gc.ca>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>; Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>  
**Subject:** RE: Bell Island Urgent Fish Transfer  
**Importance:** High

Hello [REDACTED]

Please send in an application for us to review with the information and in the meantime I will forward this email on to fish health.

We will be able to make a better decision once we receive the application.

Thank you,  
Deja

Deja Coupe (she/her)  
Governance Officer | Agent de gouvernance  
Aquaculture Policy | Politique de l'aquaculture  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Tel. | Tél. (236) 255-3461  
[deja.coupe@dfo-mpo.gc.ca](mailto:deja.coupe@dfo-mpo.gc.ca)

*I respectfully acknowledge that I live, work and play on the traditional, unceded territories of the K'ómoks First Nation.*



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**From:** [REDACTED]  
**Sent:** Monday, July 15, 2024 4:02 PM  
**To:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>  
**Cc:** [REDACTED]  
**Subject:** Bell Island Urgent Fish Transfer

Good afternoon,

I wanted to inquire about the likelihood of receiving an expedited transfer permit for fish at Bell Island on an urgency basis. The site has been experiencing unprecedented, prolonged periods of harmful *Chaetocerus* plankton species in the water column and we are seeing elevated mortality that has been persisting. We are struggling getting fish back onto feed due to these environmental conditions. Is there any chance of receiving an expedited process on a transfer permit to move these fish?

Thank you for your help on this matter.

Cheers,

[REDACTED]

Kind regards,

---

[REDACTED]

Mowi Canada West

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Mobile: [REDACTED]

Email: [REDACTED]

s.19(1)

**From:** Blasco, Nathan  
**Sent:** Tuesday, July 16, 2024 1:15 PM  
**To:** Newcomb, Reagan; McCorquodale, Brenda  
**Cc:** Liutkus, Joanne  
**Subject:** Bell Island mortality

FYI,

- At Mowi's Bell Island facility in Queen Charlotte Strait, there is a mortality event caused that Mowi FH vet has referred to as "unprecedented" in conversations with Dr. Emily Rutherford.
- The primary cause is a harmful algal bloom of *Chaetoceros* sp., which causes mechanical damage to fish gills.
- Mowi may be applying for an urgent fish transfer licence to move those fish to a location in hopes of reducing mortalities.
- The Queen Charlotte strait has been experiencing HABs in the last few months which has been the primary cause of mortality events at most of the area farms.

**Nathan Blasco**

A/ Regional Manager | Directeur Régional  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Aquaculture Management Division | Gestion de l'aquaculture  
[nathan.blasco@dfo-mpo.gc.ca](mailto:nathan.blasco@dfo-mpo.gc.ca)  
Cellular | Cellulaire 250-830-4592  
Office | Bureau 250-286-5826



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of Canada

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du Canada

Canada

**From:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>  
**Sent:** Tuesday, July 16, 2024 6:42 PM  
**To:** Price, Derek; Manchester, Howie; AQFF / AQFF (DFO/MPO); Higgins, Mark  
**Cc:** Liutkus, Joanne; Roizman, Raquel (she, her / elle, la) (DFO/MPO); Rutherford, Emily (DFO/MPO)  
**Subject:** S713 - MOWI (Bell Island to various sites)  
**Attachments:** Bell Island 24-5659 Bacti.pdf; 24-0303 Mowi RT-qPCR Report 2024June28.pdf; 24-5659MowiAPHistoAHC#24-4919\_6SWfish.pdf; BC ITC Salmon Aquaculture MOWI Bell Island to Multiple Sites.pdf; MOWI ITC 30 day Mort Report Bell ref# 892 to Bull Harbour\_Shelter Bay\_Duncan\_Doyle July 2024.pdf; FHA MOWI Bell site ref # 892 to Multiple MOWI Sites July 16 2024.pdf

**Importance:** High

Hello,

Please find the request below for urgent review.

\*Note that tasks have been assigned in AQUIS to enter information in the database directly.

ITC No	Applicant	Source	Destination	Species	Purpose	Range
S713	MOWI CANADA WEST INC.	Goletas Channel, S.E. Bell Island, Facility BC-892	Doyle Island, Gordon Group, Facility BC- 1288,Duncan Island, Goletas Channel, Facility BC- 1293,Ghi ya, Bull Harbour, Hope Isl, Facility BC- 7053,Shelter Bay, Richards Channel, Facility BC- 1350	Atlantic salmon (Salmo salar) - 280000 - Juveniles/Smolts	Aquaculture	Intraprovincial

Deja

**From:** [REDACTED]  
**Sent:** Tuesday, July 16, 2024 3:11 PM  
**To:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>  
**Cc:** Coupe, Deja <Deja.Coupe@dfo-mpo.gc.ca>; Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>;

s.19(1)

Barry, Melanie <Melanie.Barry@dfo-mpo.gc.ca>; Pretorius, Dylan <Dylan.Pretorius@dfo-mpo.gc.ca>;  
Stenhouse, Shawn <Shawn.Stenhouse@dfo-mpo.gc.ca>; Logan, Madison <[REDACTED]>  
Rutherford, Emily (DFO/MPO) <Emily.Rutherford@dfo-mpo.gc.ca>  
**Subject:** MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.

Hello Deja

Hope this note finds you well.

Please find attached for your perusal, Mowi Canada West Inc. ITC application, Fish Health Attestation and supportive documentation to transfer up to 280,000 Atlantic Salmon smolt + from our Bell Island site ref # 892 located in the town of Port Hardy BC to Duncan Island site ref # 1293, Doyle Island site ref # 1288, Shelter Bay site ref # 1350 and Bull Harbour site ref # 7053 – all located near the town of Port Hardy BC. Due to the ongoing plankton bloom at the Bell Island site that continues to challenge the stock, we are looking to move these fish as soon as possible.

With regards



MOWI CANADA WEST

---

OFFICE: (250) 850 – 3276

MOBILE: [REDACTED]

MAIL: [REDACTED]

---

OFFICE: 1046 Cedar Street  
Campbell River, BC V9W 7E2  
Canada

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The logo for MOWI, consisting of the word "MOWI" in a bold, sans-serif font with a registered trademark symbol (®) to the upper right.

s.19(1)

# MOWI Bacteriology Submission Form

Case # 24-5659 Site Bell Visit date June 25/24 Completed July 3rd/24

Plate	# Plates	# Samples	Sensitivity Required?	# Negative	# Positive
TSA	3	30		30	0
Blood	3	30		30	0
TSA +2%	3	30		29	1
FMM					

### Positive Samples

Plate	#	Colony Morphology	Gram/Cell Morphology	CO	Motility	OF	Antisera (+)	Likely ID
1	10	<u>creamy smooth</u>		+	-			<u>Sub to AHC July 3rd</u>

### Antibiotic Sensitivities (Diameter in millimeters)

Antibiotic	Sample #		
0129			
Erythromycin			
Florfenicol 29%			
Oxytetracyclin			
Romet 30			
Tribissen 40			

### Comments

Pre-transfer samples

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BC Centre for Aquatic Health Sciences

ISO/IEC 17025:2017 ACCREDITED FOR RT-qPCR OF:  
PRV, IHNV, ISAV, VHSV, IPNV, *R.SALMONINARUM*

## RT-qPCR REPORT

**BC CAHS #24-0303**

**Mowi#24-5659**

Report submitted by



BC Centre for Aquatic Health Sciences  
871A Island Highway  
Campbell River, BC  
V9W 2C2

**Friday, June 28, 2024**

Report submitted to:

**Mowi Canada West**  
**#124-1334 Island Highway**  
**Campbell River, BC**  
**V9W 8C9**  
**PH: (250) 850-3276**



# CALA

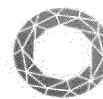
Testing  
Accreditation No. **A4144**

s.19(1)

BC CAHS is ISO/IEC 17025:2017 accredited  
by CALA for RT-qPCR screening of:  
PRV, IHNV, ISAV, VHSV, IPNV,  
*R.salmoninarum*



# RT-qPCR Assay Report



**CALA**  
Testing  
Accreditation No. A4144

**Client Mowi**  
**Attention**  
**Purchase Order**  
**Client case # 24-5659**  
**Sampling location Bell**  
**Sampling date 2024-06-25**  
**# of samples 6**  
**Project # Diagnostic**

**CAHS submission # 24-0303**  
**CAHS receipt date 26-Jun**  
**Sample submitter** [REDACTED]  
**CAHS Technician** [REDACTED]  
**Reporting Date 28-Jun**  
**Report approval** [REDACTED]  
**Assay Location BC CAHS**  
**CAHS assay # 81, 92, 117**

**Report comments** 6 Atlantic organ pools submitted for RT-qPCR (IHNv) Infectious Hematopoietic Necrosis virus, (ISAv) Infectious Salmon Anemia virus and (VHSV) Viral Hemorrhagic Septicemia virus.

## RT-qPCR Results

	Sample Description	ISA	IHN	VHS
		Ct value	Ct value	Ct value
1	303-1	Negative	Negative	Negative
2	303-2	Negative	Negative	Negative
3	303-3	Negative	Negative	Negative
4	303-4	Negative	Negative	Negative
5	303-5	Negative	Negative	Negative
6	303-6	Negative	Negative	Negative
Water Blank		Negative	Negative	Negative
Positive Control		Positive	Positive	Positive
Assay Cut-off (Ct value)		36.0	35.0	38.0

s.19(1)



[Redacted]  
**Senior Fish Pathology Consultant**

Communications, Research, Education, Diagnostics

Email: [Redacted]

## Final Report Mowi Case: 24-5659

Last Updated: **2024-07-08**

Case Coordinator: [Redacted]

Slides Received Date: 2024-07-05

Collected Date: 2024-06-25

AHC case # for slides: 24-4919

Submitter: Mowi Canada West

**Fish Location: not provided**

Veterinarian: [Redacted]

Company: Mowi Canada West

### Animal Data

Species: Atlantic salmon

Age: 2024 S1

Environment: Saltwater

Euthanized: chemical

Vaccinated: not provided

### Case History

Pretransfer samples

Fish have been recently off feed due to harmful *Chaetoceros* bloom

**Testing Requested:** histopathology [Authorized in email from Brad Boyce to Gary Marty, Wed 2024-06-26 11:35 AM]

## Final Diagnosis

For details of microscopic findings, see the e-mailed spreadsheet:

24-5659MowiAPHistoAHC#24-4xxx\_6SWfish.xlsx

**Final Comment:** Consistent with the clinical history, five of the fish have *Chaetoceros* spp. spines in the gills, and four of these fish have lesions of sufficient severity to have contributed to significant morbidity. None of the fish have infectious disease that might preclude their transfer. Filamentous bacteria associated with ulcerative branchitis in fish #5 are common in the environment, so transferring infected fish would simply move the bacteria to another place where they are already common in the environment.

Fish #s 2,3, 5, and 6 have severe gill lamellar epithelial hyperplasia and fusion, with intralesional *Chaetoceros* sp. diatoms. *Chaetoceros concavicornis*, *C. convolutus*, and a *Corethron* sp. have been associated with mortality of salmon reared in seawater netpens at numbers as low as 5/mL (Taylor and Harrison 2002). The space between the base of gill filaments often contains moderate numbers of unstained structures (square in cross section) that are consistent with the diatom *Chaetoceros*. Chains of cell bodies are about 25 µm in diameter, and individual spines/setae are about 3.5 µm in diameter. Mortality due to *Chaetoceros* can occur within a few days of exposure, because of physical damage to the gills and the resultant inflammatory

response. Affected fish are also more vulnerable to *Vibrio* infections. Larger fish tend to be more susceptible than small fish. Characteristic gill lesions include mucous cell hyperplasia, lamellar epithelial cell hyperplasia and necrosis, and variable numbers of neutrophils. Diatoms and their processes are on the surface of the gill epithelium and sometimes entrapped by multinucleate giant cells. [Source: Kent, M.L., and T.T. Poppe. 1998. Diseases of seawater netpen-reared salmonid fishes. Quadra Printers, Ltd. Nanaimo, B.C., Canada. [https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40619734\\_Part1.pdf](https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40619734_Part1.pdf)]

Fish #5 also has ulcerative branchitis, with filamentous bacteria. This form of ulcerative branchitis most commonly affects the tips of gill filaments that have severe lamellar hyperplasia. The pathogenesis involves necrosis of the tips of the filaments, sloughing of the epithelium, and infiltration of the remaining necrotic tissues by filamentous bacteria (probably *Tenacibaculum maritimum* or related species). This lesion seems to be a variant of mouthrot, and it is probably precipitated by a combination of underlying stress (e.g., handling, suboptimal water quality, toxic algae, high density, etc.).

Fish #s 1 and 4 have no microscopic lesions of sufficient severity to explain significant morbidity. Either the fish were healthy when sampled, their lesions are more significant than they seem, or morbidity resulted from (i) an acute process that did not change tissue morphology (e.g., sudden changes in water quality, suffocation, or exposure to certain toxins), or (ii) a process that changed the morphology of organs or parts of organs that were not included for examination.

General comments on all scored lesions are included in the "Abbreviations" worksheet of the spreadsheet.

#### **Literature cited:**

Taylor, F.J.R., and P.J. Harrison. 2002. Harmful algal blooms in western Canadian coastal waters. In Report #23 of the North Pacific Marine Science Organization, "Harmful algal blooms in the PICES region of the North Pacific."

## **Histopathology**

According to trimming records provided to me by the BC Animal Health Centre (AHC), the AHC received formalin-fixed samples in one bag labelled "24-5659" that contained 18 cassettes labelled 24-5659-1 through -6 (three per fish). An AHC technician trimmed the samples as needed for optimal processing into paraffin and H&E slides. Cassettes with bone (gill) were immersed 2 hours in Protocol Decalcifier B (10% hydrochloric acid solution), rinsed in water, and processed routinely into paraffin with the other cassettes. Slide numbers 1 -6 are in the same order as the Mowi cassette numbers.

**Quality control:** Liver autolysis varies from none to mild. Tissues have no postfixation dehydration or precipitates of acid hematin.

**Measure of physiologic condition:** All fish have adequate energy stores (abundant mesenteric fat).



These results relate only to the samples tested that were provided by the submitter  
and are conditional to the state in which they were received.

Any opinions and interpretations in this report are based on case data and professional knowledge and experience.

The above material is intended only for the use of the individual to whom it is addressed.

This material must not be distributed, copied, or disclosed to other unauthorized persons.

If you have received this report in error, please contact the sender immediately by telephone.

**END OF REPORT**

**s.19(1)**



# APPLICATION FOR INTRODUCTION OR TRANSFER OF SALMON TO MARINE FINFISH AQUACULTURE FACILITIES

## 1. Applicant Information

Applicant/Company/Agency

MOWI Canada West Inc.

Contact Name

[Redacted]

Business Email

[Redacted]

Business Phone

2508503276

Business Fax

2508503275

Business Mailing Address

1046 Cedar Street Campbell River BC V9W 7E2

## 2. Purpose of transfer

Aquaculture

## 3. Species Information for Introduction or Transfer

Please complete the information for the species you wish to transfer in the two tables below. Attach information of additional species if required. For example Row 1. should reflect information regarding the same species across both tables.

Species Common Name(s)	Species Scientific Name	Life Stage	Brood Year	Proposed Number for Transfer	Proposed Transfer Date		
Atlantic salmon	Salmo salar	Juveniles/Smolts	2022	280,000	22-Jul-24	+	-
						▲	▼

Add rows as required

Stock Origin	MOWI mix
Genetic Status	Diploid
Source Location of Fish (Facility Reference #)	Bell Island # 892
Salmonid Transfer Zone	7
Nearest Town (City, Province/State)	Port Hardy BC

## 4. Introduction and/or Transfer of Fish

4a. Rationale for introduction or transfer

Transfer of juvenile Atlantic salmon from a marine aquaculture smolt rearing facility to a marine aquaculture on-growing facility

4b. List any intermediate sites and transfer dates, if any

Facility Reference Number	Arrival and Departure Date					
Not applicable			+	-	▲	▼

Add rows as required



4c. Final Destination of Introduction or Transfer

**Complete all applicable items below.** In the table below, animals placed within tenure in natural waters, under an aquaculture licence, must not be released beyond the licensed area.

Company Name	Facility Reference Number	Salmonid Transfer Zone	Designated Contact Person	Provincial Landfile #		
MOWI Canada West Inc.	Duncan # 1293	7		1407326	+	-
MOWI Canada West Inc.	Doyle # 1288	7		1407325	▲	▼
MOWI Canada West Inc.	Shelter Bay # 1350	7		1407748	+	-
MOWI Canada West Inc.	Bull Harbour # 7053	7		1414224	▲	▼

Add rows as required

Please attach additional documentation in support of this application, especially issues in regard to risks and mitigation measures.

**Acknowledgement:**

I am 19 years of age or older

I am authorized by my company to make this application on their behalf

By typing or signing my name below, I certify that the information that I have provided is true and correct to the best of my knowledge. I understand that *it is an offence to provide false information.*

Date of Application

16-Jul-24

Signature



Digitally signed by

Date: 2024.07.16 09:18:00 -07'00'

**Submitting Your Application**

For further information regarding the application process or to submit your transfer application, please contact:

**ITC Salmon Coordinator**

Department of Fisheries and Oceans  
#200- 401 Burrard Street Vancouver, BC  
V6C 3S4

Phone: 604-679-0601

Email: [SALMONITC@dfo-mpo.gc.ca](mailto:SALMONITC@dfo-mpo.gc.ca)

This permit does not release the holder from any obligations under the Fisheries Act or any other federal or provincial legislation or of any other regulatory agencies.

Permit(s) cannot be issued for activities that are contrary to the proper management of the Fisheries Act.

s.19(1)



## **PRIVACY NOTICE STATEMENT**

*The information you provide on this form is collected under the authority of the Fisheries Act and Fishery (General) Regulations for the purpose of obtaining an Introduction or Transfer Licence to move aquatic organisms within a province, between provinces, or import from sources outside of Canada. Information may be shared with the Introductions and Transfers Committee (ITC) comprised of members from the Department of Fisheries and Oceans, the Canadian Food Inspection Agency, and corresponding provincial authorities. The ITC assesses applications for genetic, ecological, and disease risks. Information may be shared with neighbouring jurisdictions on proposals to introduce exotic species, to extend the range of organisms in shared watersheds or if an introduction, transfer or range extension proposals that might impact stocks within a watershed outside the receiving province. Information may be shared with interested parties (local groups, Aboriginal Groups, commercial fishermen and aquaculturists) for consultation purposes prior to the introduction of an exotic species. Formal risk assessments may be shared with external experts (e.g. academia) to further strengthen the risk assessment process if the provincial and federal government authorities lack the required subject matter expertise. Aggregate data pertaining to the proposed and approved intentional movements of aquatic organisms is tabulated annually to fulfill domestic and international (ICES -International Council for Exploration of the Sea) reporting requirements. Information may also be used or disclosed for program planning or management, reporting, safety or security purposes, audit, evaluation, statistical, research, policy development, administration or enforcement of a law and/or the detection, prevention, or suppression of crime, or investigative purposes.*

*Failure to provide the requested information may result in your application being denied. You have the right to the correction of, access to, and protection of, your personal information under the Privacy Act and to file a complaint with the Privacy Commissioner of Canada over DFO's handling of your information. Personal information collected through the processing of your application is described in the Introductions and Transfers Personal Information Bank DFO PPU 095 and can be accessed and assessed for accuracy. For more information visit Info Source [www.infosource.gc.ca](http://www.infosource.gc.ca).*

Site			
MSB-Red Island	MSB-Red Island	MSB-Red Island	MSB-Red Island
MSB-Douglas Falls	MSB-Douglas Falls	MSB-Douglas Falls	MSB-Douglas Falls
MSB-Down Point	MSB-Down Point	MSB-Down Point	MSB-Down Point
MSB-Alexander Head	MSB-Alexander Head	MSB-Alexander Head	MSB-Alexander Head

File	MSB-Red Island	File	MSB-Red Island
YearMonth	YearMonth	YearMonth	YearMonth
Day	Day	Day	Day
Time	Time	Time	Time
Operation	Operation	Operation	Operation

Row Label	Open Grant	Monthly Grant	New Label	Grant	Weight	Monthly Grant	Weight	Monthly Grant
2024-01-01 00:00	171,701	0.4%	2024-01-01 00:00	98,122	0.00%	84,818	0.00%	0.00%
2024-01-10 00:00	174,061	1.4%	2024-01-10 00:00	99,187	0.06%	81,754	0.00%	0.11%
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2024-01-30 00:00	178,901	1.3%	2024-01-30 00:00	98,363	0.06%	77,527	0.00%	0.73%
2024-02-10 00:00	184,961	2.7%	2024-02-10 00:00	100,721	0.06%	74,904	0.00%	1.00%
2024-02-20 00:00	174,449	0.1%	2024-02-20 00:00	93,051	0.00%	71,507	0.00%	0.00%
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2024-03-10 00:00	171,778	0.1%	2024-03-10 00:00	94,941	0.01%	67,225	0.00%	0.00%
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2024-03-30 00:00	181,111	0.5%	2024-03-30 00:00	93,348	0.01%	61,672	0.00%	0.46%
2024-04-10 00:00	189,889	1.1%	2024-04-10 00:00	93,201	0.00%	55,612	0.00%	0.00%
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2024-05-30 00:00	180,289	0.8%	2024-05-30 00:00	101,544	0.01%	61,215	0.00%	0.00%
2024-06-10 00:00	171,272	0.0%	2024-06-10 00:00	101,544	0.00%	58,305	0.00%	0.00%
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File Group	File	File Group	File
2024-01	2024-01	2024-01	2024-01
2024-02	2024-02	2024-02	2024-02
2024-03	2024-03	2024-03	2024-03
2024-04	2024-04	2024-04	2024-04
2024-05	2024-05	2024-05	2024-05
2024-06	2024-06	2024-06	2024-06
2024-07	2024-07	2024-07	2024-07
2024-08	2024-08	2024-08	2024-08
2024-09	2024-09	2024-09	2024-09
2024-10	2024-10	2024-10	2024-10
2024-11	2024-11	2024-11	2024-11
2024-12	2024-12	2024-12	2024-12

File	MSB-Red Island	File	MSB-Red Island
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2024-12-30 00:00	178,711	0.1%	2024-12-30 00:00	101,111	0.00%	14,706	0.00%	0.00%

**TRANSFER OF FISH FOR AQUACULTURE PURPOSES ATTESTATION FORM**

**Mowi Canada West Inc.**

Company Name: .

**Duncan, Doyle, Bull Harbour, Shelter Bay (all sites in 3-4)**

Receiving Site Name and Fish Health Zone:

**(Duncan 1293) (Doyle 1288) (Bull Harbour 7053) (Shelter Bay 1350)**

Receiving Site Facility Reference #:

**Bell Island 3-4**

Source Name and Fish Health Zone: (include  
intermediate sites if applicable):

892

Source Facility Reference #:

Identification of fish in the tank(s)/pond(s)/pen(s) to  
be moved:

All pens

Date of Transfer:

July 22, 2024

Species:

Salmo salar

Life Stage:

Smolt +

Number of fish:

**280,000**

**Section I: To be completed by a licensed veterinarian:**

1. Have the fish to be transferred experienced mortalities, equal to or greater than 0.05% per day/{tank, pond, pen} for FOUR (4) consecutive days during the last 30 days<sup>1</sup>? **YES** (if yes, please complete section below for each event and proceed to question 3; if no, please proceed to question 2)
  - a. What was the **veterinary diagnosis** attributed to the mortality **Harmful plankton**
  - b. What diagnostic tests or other information were used to inform diagnosis? \_\_\_\_\_ (please attach all test results)
  - c. What was the management decision? \_\_\_\_\_
  - d. What was the outcome? \_\_\_\_\_
  - e. Are additional management actions anticipated if transfer licence is granted? (if yes, provide proposed action plan)
2. Within the past 30 days, was there testing<sup>2</sup> used to determine pre-transfer health for the fish in the tank(s)/pond(s)/pen(s) to be transferred? **Yes** (if yes, please provide a summary; test results must be made available to DFO upon request)
3. Have any fish reared at the source facility been diagnosed for a CFIA reportable or immediately notifiable diseases during any part of the residence of the fish in the tank(s)/pond(s)/pen(s) to be transferred? **No** (if yes, a management plan must be submitted<sup>3</sup>)
4. Have the fish in the tank(s)/pond(s)/pen(s) to be transferred received any vaccinations? **Yes** (if yes, please provide a summary, detailed records must be made available to DFO upon request)

**Apex IHN, Alphaject 5-3, Renogen,**

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<sup>1</sup> This does not include anthropogenic associated mortalities (grading, culling, handling, smolting), documented water quality issues and, in freshwater, saprolegnia infections

<sup>2</sup> Applicable testing results would include virology, bacteriology, gross and histo-pathology and any other molecular diagnostics.

<sup>3</sup> If a CFIA reportable or immediately notifiable disease is diagnosed in the fish to be transferred, authorization for the transfer will be determined in consultation with CFIA based on having an appropriate and approved management plan.

<sup>4</sup> A Fish Health Event is defined as “a suspected or active disease occurrence within an aquaculture facility that requires the involvement of a veterinarian and any measure that is intended to reduce or mitigate impact and risk that is associated with that occurrence or event”. Examples include: targeted sampling, culling, quarantine, treatment. Bath treatments for superficial skin/gill infections are exempt.

*For hatchery to marine transfers only, please complete question 5:*

- 5. In the past 90 days, has there been a “fish health event”<sup>4</sup> in any group of fish within the source facility?\_\_\_\_\_ (if yes, provide supporting evidence to demonstrate either (a) the fish to be transferred were not exposed, or (b) they are unaffected by the disease responsible for the “fish health event”)

**Section II: To be completed by a licensed veterinarian:**

I hereby attest that:

- (i) this information is true, accurate and complete to the best of my knowledge; and
- (ii) I have reviewed all available information about the health of the populations to be moved from the source facility and, in my professional opinion, they are healthy.

			<b>July 16, 2024</b>
Name of Attesting Veterinarian	CVBC Registration Number	Signature	Date of Attestation

The completed application can be submitted to:

ITC Salmon Coordinator  
 Department of Fisheries and Oceans  
 #200- 401 Burrard Street Vancouver, BC  
 V6C 3S4  
 Phone: 604-666-3354  
 Email: [SALMONITC@dfo-mpo.gc.ca](mailto:SALMONITC@dfo-mpo.gc.ca)

s.19(1)





## Marine Fish Health Records Review For ITC Transfer

Review Date: July 16, 2024

Application #: s713

DFO Audit Dates: July 10, 2024

Review conducted by DFO staff: Melanie Barry

AQ Licence #: 140734

Company Name: MOWI Canada West Inc

Source: Bell Island Reference #: 892

Proposed Date: July 22, 2024 (ASAP)

Destination: Duncan (ref #1293) Transfer Inv. 280,000

Doyle (ref #1288)

Shelter Bay (ref #1350)

Bull Harbour (ref #7053)

Origin of site:

s675: Big Tree Creek

SW entry date: April 2024 Inventory: 611,508

DFO staff reviewing comment:

MOWI Canada West proposes to transfer of up to 280,000 juvenile Atlantic Salmon (~330g) from their marine facility Bell Island (ref#892), located in AMZ 9, in Goletas Channel near Port Hardy, to their following marine sites: Duncan (ref#1293), Doyle (ref#1288), Shelter Bay (ref#1350), and Bull Harbour (ref#7053) – all located in the Port Hardy area. The transfers are proposed for July 22, 2024 or as soon as possible. **There was one ongoing fish health event for mouthrot at this facility** (April 2024 – July 2024). There has been one ongoing mortality event due to harmful plankton (June 2024 – ongoing). Sea lice counts have been low, with average motiles less than 1/fish. One DFO fish **health audit has occurred** for this cycle of fish with a total of 10 samples collected. On July 16, 2024, histopathology was submitted to AHC and PCR was submitted to CAHS. **Results from these audit samples are pending.**

The ITC Application can be viewed: [BC ITC Salmon Aquaculture MOWI Bell Island to Multiple Sites.pdf](#)

### Health Attestation

- The Health attestation indicates that mortality rates in the last 30 days **have exceeded 0.05 %** for 4 consecutive days. This is attributed to “harmful plankton”
- Testing has been conducted to determine pre-transfer health within the last 30 days.
- There have been no reportable CFIA diseases



- Vaccinations include: Alphaject 5-3 (*Aeromonas salmonicida*, *Vibro anguillarum*, *V.ordalii*, *V.salmonicida*, and *Moritella Viscosa*) and Apex IHN, and Renogen.
- The Fish Health Attestation was signed by [REDACTED] (CVBC [REDACTED]) on July 16, 2024

The Fish Health Attestation can be viewed: [FHA MOWI Bell site ref # 892 to Multiple MOWI Sites July 16 2024.pdf](#)

#### **Mortality Events:**

There has been one ongoing mortality event for this cycle of fish. On June 12, 2024 a mortality event due to a plankton bloom (chaetoceros) was reported. This event is ongoing. Event report details are available here: [Mortality Event\Bell - June](#)

#### **Fish Health Events:**

A Fish Health Event for mouthrot has been reported as ongoing at Bell Island, between April 2024-July 2024 (ongoing as of July 10, 2024). Fish were treated with Florfenicol. Details are available here: [Fish Health Event\Bell - April](#)

#### **Sea Lice:**

There have been no sea lice exceedance events for this cycle of fish. Most recent counts are from July 9, 2024, with an average of 0.32 motiles. Sea lice data is available here: [2024-073 SL Data.pdf](#)

#### **Mortality Review:**

A recent mortality report for Mar 27, 2024 – July 9, 2024 was collected during the DFO audit on July 10, 2024. Recent mortality have been very elevated, and the site is experiencing an ongoing mortality even due to plankton. The ME was triggered June 12 with 7620 (1.127%) mortalities. As of the 30 day follow-up on July 14, the site has lost 341,912 fish since the event began on June 12. The follow-up report indicates that mouthrot numbers were starting to increase leading up to this event but treatment has not been started as feeding is paused due to water quality. It was noted that mucus and numerous clumps of chaetoceros are being seen on the gill scrapings from mortalities.

A 30 day mortality report was provided by MOWI for the period of June 16-July 15, 2024 and the elevated mortality in this period is attributed to “Env-algal blooms”, “Mouthrot”, “old” and “non-performers”. The environmental data and detailed ME information is available here: [Mortality Event\Bell - June](#)

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Mortality reports are available here:

[2024-073 Mortality by Cause \(Apr-Jul\).pdf](#)

[2024-073 Mortality by Day \(Apr-Jul\).pdf](#)



MOWI ITC 30 day Mort Report Bell ref# 892 July 2024 (V2).pdf

## Sampling by Industry:

### RT-qPCR

On June 25, 2024, 6 multiorgan pools (5 fish per pool; 30 fish total) were collected. These were submitted to CAHS and were all negative for all targets (IHNv, ISAv, and VHSV).

The full report can be viewed here: [24-0303 Mowi RT-qPCR Report 2024June28.pdf](#)

### Histology

On June 25, 2024 MOWI sampled 6 fish for histology. These fish were submitted to AHC and slides were read by [REDACTED]. The Final comment was:

"Consistent with the clinical history, five of the fish have *Chaetoceros* spp. spines in the gills, and four of these fish have lesions of sufficient severity to have contributed to significant morbidity. None of the fish have infectious disease that might preclude their transfer. Filamentous bacteria associated with ulcerative branchitis in fish #5 are common in the environment, so transferring infected fish would simply move the bacteria to another place where they are already common in the environment.

Fish #s 2,3, 5, and 6 have severe gill lamellar epithelial hyperplasia and fusion, with intralesional *Chaetoceros* sp. diatoms. *Chaetoceros concavicornis*, *C. convolutus*, and a *Corethron* sp. have been associated with mortality of salmon reared in seawater netpens at numbers as low as 5/mL (Taylor and Harrison 2002). The space between the base of gill filaments often contains moderate numbers of unstained structures (square in cross section) that are consistent with the diatom *Chaetoceros*. Chains of cell bodies are about 25 µm in diameter, and individual spines/setae are about 3.5 µm in diameter. Mortality due to *Chaetoceros* can occur within a few days of exposure, because of physical damage to the gills and the resultant inflammatory response. Affected fish are also more vulnerable to *Vibrio* infections. Larger fish tend to be more susceptible than small fish. Characteristic gill lesions include mucous cell hyperplasia, lamellar epithelial cell hyperplasia and necrosis, and variable numbers of neutrophils. Diatoms and their processes are on the surface of the gill epithelium and sometimes entrapped by multinucleate giant cells. [Source: Kent, M.L., and T.T. Poppe. 1998. Diseases of seawater netpen-reared salmonid fishes. Quadra Printers, Ltd. Nanaimo, B.C., Canada. [https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40619734\\_Part1.pdf](https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40619734_Part1.pdf)]

Fish #5 also has ulcerative branchitis, with filamentous bacteria. This form of ulcerative branchitis most commonly affects the tips of gill filaments that have severe lamellar hyperplasia. The pathogenesis involves necrosis of the tips of the filaments, sloughing of the epithelium, and infiltration of the remaining necrotic tissues by filamentous bacteria (probably *Tenacibaculum maritimum* or related species). This lesion seems to be a variant of mouthrot, and it is probably precipitated by a combination of underlying stress (e.g., handling, suboptimal water quality, toxic algae, high density, etc.).

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Fish #s 1 and 4 have no microscopic lesions of sufficient severity to explain significant morbidity. Either the fish were healthy when sampled, their lesions are more significant than they seem, or



morbidity resulted from (i) an acute process that did not change tissue morphology (e.g., sudden changes in water quality, suffocation, or exposure to certain toxins), or (ii) a process that changed the morphology of organs or parts of organs that were not included for examination.”

The report is available here: [24-5659MowiAPHistoAHC#24-4919\\_6SWfish.pdf](#)

### Bacteriology

On June 25, 2024 MOWI sampled 30 fish for bacteriology on TSA, Blood and TSA +2%. There was creamy, smooth growth on fish #10 on the TSA +2% plate and this was submitted to AHC for ID on July 3, 2024. This was identified as *Psychrobacter sp.*

The in house report is available here: [Bell Island 24-5659 Bacti.pdf](#)

AHC report is available here: [24-5659 Bell Island AHC Bacteriology.pdf](#)

### DFO Audits:

There has been one DFO Fish Health audits at Bell this cycle. A total of 10 fish were sampled during this audit on July 10, 2024. On January 16, 2024, DFO staff were on site and the following pen observations were noted: staff noted that while on site fish were easily started, and there were ~1000 moribund fish in each pen. Many herring were also observed in the pens. The site was experiencing elevated mortality due to plankton (chaetoceros). At the time of the audit, the site had undergone 5 Florfenicol treatments for mouthrot. The most recent treatment was stopped to due environmental conditions. Mortality, sea lice, and treatment records were viewed on site along with prescriptions, transfer records, dive dates, aquaculture licence, and environmental data.

#### July 10, 2024: [892-2024-3-A-073](#)

Ten fish were collected from a daily mortality of 7446 fish. During necropsy, FH staff noted yellow plaque on the jaw of 3/10 fish, 5/10 displayed gill damage and all 10 had gill pathology (hemorrhaging, pale and or/mucous overproduction). The daily mortalities were comprised primarily of “algal bloom” (4603 mortalities), “non-performers” (1389 mortalities) and “mouthrot” (1358 mortalities)

On July 16, 2024, histopathology samples were submitted to AHC and virology samples for RT-qPCR analysis (SAV, IHN, IPN, ISA, SRS, VHS) were submitted to CAHS.

-Results were all “undetermined” for SAV, IHN, IPN, ISA, SRS and VHS.

-The report is available here: [24-0336 DFO RT-qPCR Report 2024July18.pdf](#)

-Bacteriology yielded no significant growth.

-Histology results are available here: [2024-073 AHC Histology Report.pdf](#)  
[AHC Histology Report.xlsx](#)

“All 10 fish had evidence of moderate to severe gill disease with large numbers of Chaetoceros sp. between gill filaments. The gill lesions were often associated with secondary bacterial infection and tissue necrosis.



Most of the fish also had evidence of necrotizing enteritis with large numbers of intralesional bacteria.

Three mandibles were included in the submission. All had evidence of irritation, erosion, and ulceration. However, only one mandible had large numbers of intralesional bacteria (SUF).

All other documents related to these transfers can be viewed at the following:

[..s713 - Bell to Various Mowi sites](#)

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# Marine Finfish Site Summary Report

## Report Summary Dates:

2024-Apr-01 - 2024-Jul-16

## General:

**Facility Name:** Goletas Channel, S.E. Bell Island

**Facility Ref. No.:** 892

**Landfile No.:** 1404918

**Licence Holder:** MOWI CANADA WEST INC.

**Fish Health Zone:** 3

**Fish Health Subzone:** 3.4

**AMD Area:**

**First Nations Interests:** Kwakiutl First Nation, Tlatlasikwala First Nation, Gwa'Sala-'Nakwaxda'xw Nation

**Operation History:** 626196, 20-02-27, Status: Licence Issued 648865, 21-10-22, Owner Size Amendment, Status: Licence Issued 671808, 23-03-09, Status: Licence Issued

## Valid Licences:

Licence No	Licence Suffix	Licence Type	Licensees	Effective Date	Expiry Date	COL Version	Terminated Date	Service Type	Status
140734	5	Marine Finfish	MOWI CANADA WEST INC.	2024-JUL-01	2029-JUN-30	AQFF 2024/2029 Salmon		Licence Reissuance Application	Valid

## Cultured Species:

Species	Culture Method	Annual Production Amount(MT)	Last Approved Annual Production Amount(MT)	Approved Date	Notes	Status
Atlantic salmon (Salmo salar)	Marine Finfish Culture	600		2010-DEC-21		Approved

## Site Specific Conditions:

Specific Condition Type	Licence Type	Specific Condition Text	Max Peak Biomass (Tonnes)	Last Approved Peak Biomass (Tonnes)	Max Production (Tonnes)	Last Approved Max Production (Tonnes)	Approved Date	End Date	Display Sequence	Notes	Status
Combined Peak Biomass	Marine Finfish		600	600			2011-DEC-07				Approved

## Infrastructure:

Infrastructure Component Type	Culture Method	Distance from Waterbody	# Units	Last Approved # Units	Total Area (m <sup>2</sup> )	Total Length (m)	Total Volume (m <sup>3</sup> )	Approved Date	End Date	Description	Notes	Status
Net Pens	Marine Finfish Culture	>30 metres	18		13832			2011-JUL-26		square		Approved

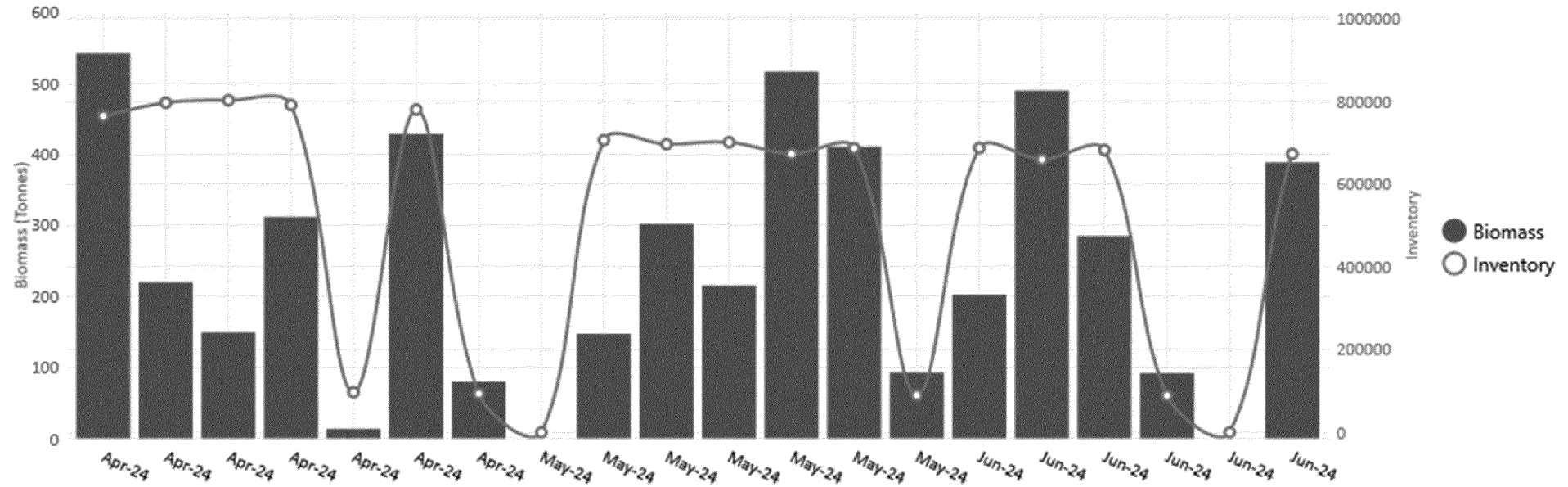
## Fallow Periods:

Start Date	End Date	Notes

2020-JUL-01	2024-APR-30	As per following email received 27 May 2020 expect this site to be fallow from July 1 2020 until 30 June 2021. As per 2021-2022 Inventory and Transfers Report, expect this site to be fallow from July 1 2021 to June 30 2022. As per email June 23 2022, expect this site to be fallow from July 1 2022 to June 30 2023. ITC licence approved into this site on Sept 9 2022
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### Inventory/Biomass:

Atlantic salmon (*Salmo salar*) (Active Months: 20)



### Peak Biomass:

Initial Seawater Entry Date	Peak Biomass Date	Peak Production Biomass	Final Harvest Date
2024-MAR-28	2024-APR-18	0	

### Transfers:

Start Date	End Date	I&T Licence No	Number of Fish	Source Facility	Receiving Facility
2024-APR-23	2024-APR-28	139230	611508	Big Tree Creek, 20 km east of Sayward	Goletas Channel, S.E. Bell Island

### Site Inspections:

No data available

### Mortality Events:

Incident Date	Mortality Cause	Event Information	Status
2024-JUN-12	Algae Bloom	On gills scrapings from mortalities seeing mucus and numerous clumps of Chaetocerus. Feeding stopped June 12.	Open
2024-JUN-12	Algae Bloom	On gills scrapings from mortalities seeing mucus and numerous clumps of Chaetocerus. Feeding stopped June 12.	Open
2024-JUN-12			Open
2024-JUN-12	Algae Bloom	On gills scrapings from mortalities seeing mucus and numerous clumps of Chaetocerus. Feeding stopped June 12.	Open
2024-JUN-12	Algae Bloom	On gills scrapings from mortalities seeing mucus and numerous clumps of Chaetocerus. Feeding stopped June 12.	Open

### Fish Health and Sea Lice Mitigation Events:

Incident Date	Sea Lice Mitigative Category	Veterinary Diagnosis	Species Affected	Status
2024-APR-22		Mouthrot	Atlantic salmon	Completed
2024-MAY-09		Mouthrot	Atlantic salmon	Completed
2024-MAY-28		Mouthrot	Atlantic salmon	Completed
2024-JUN-25		Mouthrot	Atlantic salmon	Open
2024-JUL-06		Mouthrot	Atlantic salmon	Open

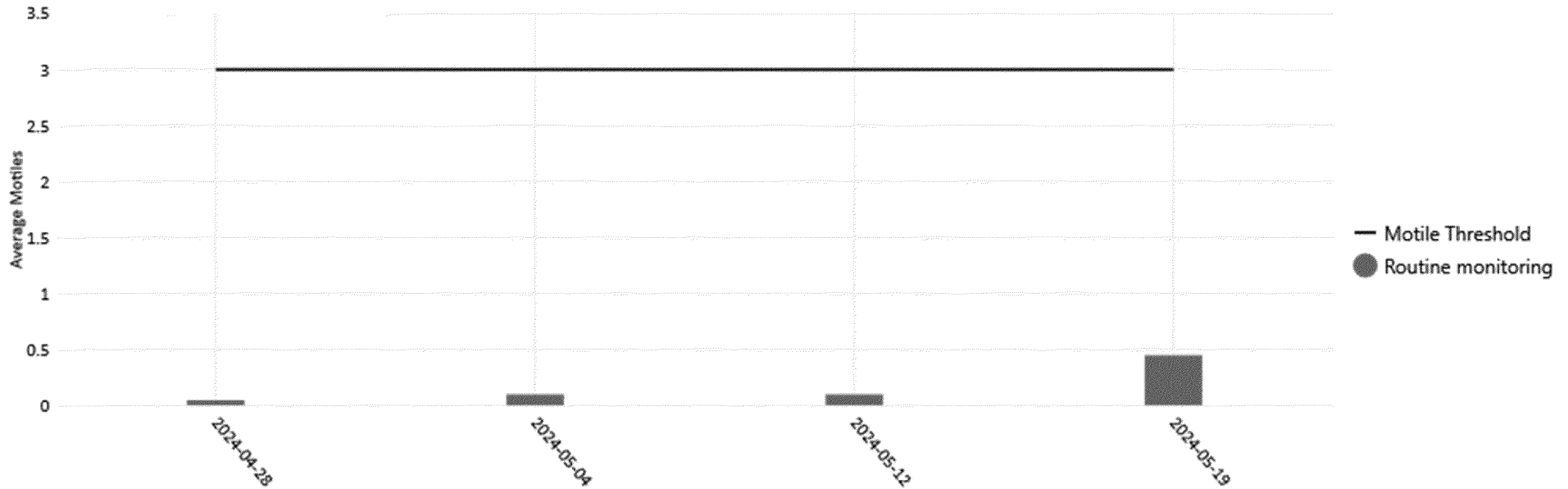
### Antibiotic and Pesticide Treatments:

Drug Type	Active Chemical Ingredients	Treatment Start Date	Treatment End Date	Treatment Reason	Species Treated
Aquaflor	FLORFENICOL	2024-JAN-05	2024-JAN-14	Bacterial Infection	Atlantic salmon (Salmo salar)
Aquaflor	FLORFENICOL	2024-JAN-26	2024-FEB-04	Bacterial Infection	Atlantic salmon (Salmo salar)
Aquaflor	FLORFENICOL	2024-FEB-16	2024-FEB-25	Bacterial Infection	Atlantic salmon (Salmo salar)
Aquaflor	FLORFENICOL	2024-MAR-09	2024-MAR-16	Bacterial Infection	Atlantic salmon (Salmo salar)

### Industry Sea Lice Events:

No data available

### Sea Lice Abundance:



### Mortality By Category:

No data available

**Benthic:**

<b>Survey Start Date</b>	<b>Survey End Date</b>	<b>Benthic Sampling Method</b>	<b>Survey Timing Type</b>
2023-JAN-16		Sediment Sampling	Peak Biomass

**Escape Events:**

No data available

**Marine Mammal Events:**

No data available

**From:** [REDACTED]  
**Sent:** Wednesday, July 17, 2024 3:41 PM  
**To:** Barry, Melanie; [REDACTED]  
**Cc:** Manchester, Howie  
**Subject:** RE: MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.  
**Attachments:** MOWI ITC 30 day Mort Report Bell ref# 892 to Bull Harbour\_Shelter Bay\_Duncan\_Doyle July 2024 (V2).pdf

Hi Mel

Not sure why the original pdf did not populate ...however, the one attached did populate 😊

Cheers  
[REDACTED]

---

**From:** Barry, Melanie <Melanie.Barry@dfo-mpo.gc.ca>  
**Sent:** Wednesday, July 17, 2024 11:52 AM  
**To:** [REDACTED]  
**Cc:** Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>  
**Subject:** RE: MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.

**ALERT:** This message originated outside of Mowi's network. **BE CAUTIOUS** before clicking any link or attachment.

Great – thanks!

I just tried opening the 30 day mortality report and the classification breakdown (on the right side of the report) doesn't seem to be populating. Could you please provide an updated version of this if possible?

Thanks,  
Mel

---

**From:** [REDACTED]  
**Sent:** Wednesday, July 17, 2024 11:24 AM  
**To:** Barry, Melanie <Melanie.Barry@dfo-mpo.gc.ca>; [REDACTED]  
**Cc:** Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>  
**Subject:** RE: MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.

Yes, that is correct. 5 fish x 6 pools, so 30 fish total sampled.

Cheers,  
[REDACTED]

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**From:** Barry, Melanie <Melanie.Barry@dfo-mpo.gc.ca>  
**Sent:** Wednesday, July 17, 2024 11:22 AM  
**To:** [REDACTED]  
**Cc:** Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>  
**Subject:** RE: MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.

**ALERT:** This message originated outside of Mowi's network. **BE CAUTIOUS** before clicking any link or attachment.

Thank you!

I have one more question. I see that there were 6 organ pools submitted for PCR – can you please confirm how many fish total were sampled? Was this 30 fish total, pooled in groups of 5?

Cheers,  
Mel

---

**From:** [REDACTED]  
**Sent:** Wednesday, July 17, 2024 11:08 AM  
**To:** Barry, Melanie <Melanie.Barry@dfo-mpo.gc.ca>; [REDACTED]  
**Cc:** Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>  
**Subject:** RE: MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.

Hi Mel,

Absolutely here is the copy of the Bacti report from AHC for this case.

Cheers,  
[REDACTED]

Kind regards,  
[REDACTED]

Mowi Canada West

Mobile: [REDACTED]  
Email: [REDACTED]

---

**From:** Barry, Melanie <Melanie.Barry@dfo-mpo.gc.ca>  
**Sent:** Wednesday, July 17, 2024 11:03 AM  
**To:** [REDACTED]  
**Cc:** Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>  
**Subject:** RE: MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.

**ALERT:** This message originated outside of Mowi's network. **BE CAUTIOUS** before clicking any link or attachment.

Good Morning [REDACTED],

I'm just reviewing the information for this transfer and was wondering if you have the AHC report with bacteriology results? I see that this was submitted on July 3<sup>rd</sup>.

Thanks!  
Mel

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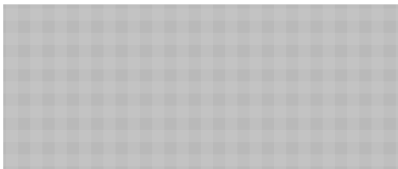
**From:** [REDACTED]  
**Sent:** Tuesday, July 16, 2024 3:11 PM  
**To:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>  
**Cc:** Coupe, Deja <Deja.Coupe@dfo-mpo.gc.ca>; Manchester, Howie <Howie.Manchester@dfo-mpo.gc.ca>; Barry, Melanie <Melanie.Barry@dfo-mpo.gc.ca>; Pretorius, Dylan <Dylan.Pretorius@dfo-mpo.gc.ca>; Stenhouse, Shawn <Shawn.Stenhouse@dfo-mpo.gc.ca>; [REDACTED]  
Rutherford, Emily (DFO/MPO) <Emily.Rutherford@dfo-mpo.gc.ca>  
**Subject:** MOWI Salmon ITC application Bell Island ref # 892 to Multiple MOWI sites.

Hello Deja

Hope this note finds you well.

Please find attached for your perusal, Mowi Canada West Inc. ITC application, Fish Health Attestation and supportive documentation to transfer up to 280,000 Atlantic Salmon smolt + from our Bell Island site ref # 892 located in the town of Port Hardy BC to Duncan Island site ref # 1293, Doyle Island site ref # 1288, Shelter Bay site ref # 1350 and Bull Harbour site ref # 7053 – all located near the town of Port Hardy BC. Due to the ongoing plankton bloom at the Bell Island site that continues to challenge the stock, we are looking to move these fish as soon as possible.

With regards



MOWI CANADA WEST

OFFICE: (250) 850 – 3276

MOBILE: [REDACTED]

MAIL: [REDACTED]

OFFICE: 1046 Cedar Street  
Campbell River, BC V9W 7E2  
Canada

s.19(1)



Site	
MBI-Bell Island	MBT-Big Tree Creek
MDO-Doyle Island	MOF-Ocean Falls
MSA-Shaw Point	MSH-Sheep Pass
MAI-Alexander Inlet	MBH-Ghi-ya

Site	MBI-Bell Island
Year/Month	(Multiple Items)
Unit	
Generation	All

Site	MBI-Bell Island
Year/Month	(Multiple Items)
Generation	(Multiple Items)

Column Labels		24YCD6		24YCBroodNuc1		
Row Labels	Open Count	Mortality Count %	Count	Weight	Mortality Count	Mortality Count %
2024-06-16 00:00:00	667,705	0.47%	582,827	92050	84,778	97952 3.68%
2024-06-17 00:00:00	664,581	1.43%	582,827	92050	81,754	97952 5.17%
2024-06-18 00:00:00	655,108	0.49%	577,576	92064	77,527	97952 3.71%
2024-06-19 00:00:00	651,910	1.31%	574,383	92056	77,527	97952 3.71%
2024-06-20 00:00:00	643,381	2.79%	568,727	92051	74,654	97952 1.68%
2024-06-21 00:00:00	625,449	5.10%	552,052	92098	73,397	97952 21.30%
2024-06-22 00:00:00	593,555	0.30%	535,791	92119	57,764	97952 0.93%
2024-06-23 00:00:00	591,768	0.15%	534,543	92120	57,225	97952 0.22%
2024-06-24 00:00:00	590,857	0.26%	533,760	92145	57,097	97952 0.24%
2024-06-25 00:00:00	589,310	0.59%	532,348	92271	56,962	97952 2.46%
2024-06-26 00:00:00	585,848	1.17%	530,286	92821	55,562	98127 7.19%
2024-06-27 00:00:00	578,986	7.19%	527,417	93809	51,569	98127 7.45%
2024-06-28 00:00:00	537,343	5.80%	489,615	92834	47,728	98127 11.01%
2024-06-29 00:00:00	506,185	1.11%	463,712	92869	42,473	98127 1.24%
2024-06-30 00:00:00	506,574	2.07%	458,626	92872	41,948	98127 3.30%
2024-07-01 00:00:00	490,209	4.88%	449,644	92869	40,565	98127 5.42%
2024-07-02 00:00:00	466,272		427,907	92865	38,365	98127
2024-07-03 00:00:00	466,272	4.02%	427,907	92865	38,365	98127 8.06%
2024-07-04 00:00:00	447,551	6.81%	412,279	92852	35,272	98127 4.48%
2024-07-05 00:00:00	421,551	6.59%	387,859	92443	33,692	98127 15.10%
2024-07-06 00:00:00	393,790	0.52%	365,185	92400	28,605	98127 1.16%
2024-07-07 00:00:00	391,736	1.40%	363,462	92814	28,274	98216 1.54%
2024-07-08 00:00:00	386,265	4.54%	358,427	92789	27,838	98436 4.61%
2024-07-09 00:00:00	368,716	5.17%	342,162	92851	26,554	98926 6.80%
2024-07-10 00:00:00	349,668	2.13%	324,920	93974	24,748	99591 2.89%
2024-07-11 00:00:00	342,224	2.57%	318,190	94245	24,034	40199 4.27%
2024-07-12 00:00:00	333,423	6.43%	310,415	94976	23,008	40834 8.30%
2024-07-13 00:00:00	311,971	7.31%	290,872	95581	21,099	41335 7.32%
2024-07-14 00:00:00	289,160	6.17%	269,605	95587	19,555	41817 6.64%
2024-07-15 00:00:00	271,314	7.69%	253,057	95802	18,257	42312 12.15%

Fish Group				
23YCD6	23YCD7	23YCDF MW Nu...	23YCDF MW Nu...	23YCFE All 1
23YCSales1 Grieg	23YCSALES2 Grieg	24YCD1	24YCD2	24YCD3
24YCD4	24YCD5	24YCBroodNuc2	24YCBroodPE1	24YCFAM
24YCSales1 Grieg	24YCSales3 Cer...	25	25G-35C Nov 10	25YCD1

Site	MBI-Bell Island
Fish Group	(Multiple Items)
Year/Month	(Multiple Items)
Generation	(Multiple Items)

Site	MBI-Bell Island
Fish Group	(Multiple Items)
Year/Month	(Multiple Items)
Generation	(Multiple Items)

Mortality Count %		Column Labels									
Row Labels	Mortality Count	Deformities	Env. Algal blooms	Inv. loss - Samples	Mouth Mycobacteria	Other non-infectious caus	Ph. damage - Concussion	Poor performers - runs	Without diagnosis - fresh	Without diagnosis - decompo	
2024-06-16 00:00:00	3,124	2024-06-16 00:00:00	9.99%	70.01%	0.00%	0.00%	20.01%	0.00%	0.00%	0.00%	
2024-06-17 00:00:00	9,478	2024-06-17 00:00:00	11.66%	84.13%	0.21%	4.02%	0.00%	0.00%	0.00%	0.00%	
2024-06-18 00:00:00	3,193	2024-06-18 00:00:00	11.99%	84.00%	0.00%	4.01%	0.00%	0.00%	0.00%	0.00%	
2024-06-19 00:00:00	8,529	2024-06-19 00:00:00	9.99%	70.00%	0.00%	20.01%	0.00%	0.00%	0.00%	0.00%	
2024-06-20 00:00:00	17,932	2024-06-20 00:00:00	0.00%	73.15%	0.00%	0.00%	0.00%	0.00%	0.00%	17.10%	
2024-06-21 00:00:00	31,894	2024-06-21 00:00:00	0.00%	75.00%	0.00%	10.01%	0.00%	0.00%	0.00%	15.00%	
2024-06-22 00:00:00	1,787	2024-06-22 00:00:00	6.66%	64.63%	0.00%	3.86%	0.00%	12.53%	0.00%	12.31%	
2024-06-23 00:00:00	911	2024-06-23 00:00:00	0.00%	0.00%	0.00%	12.95%	0.00%	62.13%	0.00%	9.88%	
2024-06-24 00:00:00	1,547	2024-06-24 00:00:00	23.21%	0.00%	0.00%	13.57%	0.00%	6.14%	0.00%	29.80%	
2024-06-25 00:00:00	3,463	2024-06-25 00:00:00	0.03%	50.00%	1.16%	19.82%	0.00%	0.23%	0.00%	13.29%	
2024-06-26 00:00:00	6,962	2024-06-26 00:00:00	0.00%	75.01%	0.00%	10.00%	0.00%	0.00%	0.00%	15.00%	
2024-06-27 00:00:00	41,643	2024-06-27 00:00:00	0.00%	75.50%	0.00%	10.00%	0.00%	0.00%	0.00%	10.00%	
2024-06-28 00:00:00	31,158	2024-06-28 00:00:00	0.00%	75.00%	0.00%	10.00%	0.00%	0.00%	0.00%	14.99%	
2024-06-29 00:00:00	5,611	2024-06-29 00:00:00	0.00%	75.01%	0.00%	9.98%	0.00%	0.00%	0.00%	15.01%	
2024-06-30 00:00:00	10,365	2024-06-30 00:00:00	0.00%	75.01%	0.00%	9.99%	0.00%	0.00%	0.00%	15.00%	
2024-07-01 00:00:00	23,937	2024-07-01 00:00:00	0.00%	75.01%	0.00%	9.99%	0.00%	0.00%	0.00%	14.99%	
2024-07-02 00:00:00		2024-07-02 00:00:00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
2024-07-03 00:00:00	18,721	2024-07-03 00:00:00	9.59%	65.63%	0.00%	4.81%	19.97%	0.00%	0.00%	0.00%	
2024-07-04 00:00:00	26,000	2024-07-04 00:00:00	0.00%	75.00%	0.00%	10.00%	0.00%	0.00%	0.00%	15.00%	
2024-07-05 00:00:00	27,761	2024-07-05 00:00:00	0.00%	75.00%	0.00%	10.00%	0.00%	0.00%	0.00%	15.00%	
2024-07-06 00:00:00	2,054	2024-07-06 00:00:00	2.48%	74.63%	0.00%	9.98%	0.00%	7.06%	0.00%	4.87%	
2024-07-07 00:00:00	5,471	2024-07-07 00:00:00	0.00%	83.35%	0.00%	4.84%	1.01%	10.20%	0.00%	0.60%	
2024-07-08 00:00:00	17,349	2024-07-08 00:00:00	0.83%	77.10%	0.00%	6.23%	4.09%	11.76%	0.00%	4.00%	
2024-07-09 00:00:00	19,048	2024-07-09 00:00:00	0.00%	38.98%	0.11%	25.80%	1.00%	0.00%	0.00%	15.93%	
2024-07-10 00:00:00	7,444	2024-07-10 00:00:00	0.04%	61.84%	0.00%	18.24%	1.16%	0.00%	0.00%	0.07%	
2024-07-11 00:00:00	8,801	2024-07-11 00:00:00	0.00%	75.04%	0.00%	9.98%	0.00%	0.00%	0.00%	0.00%	
2024-07-12 00:00:00	21,452	2024-07-12 00:00:00	0.00%	75.00%	0.00%	10.00%	0.00%	0.00%	0.00%	15.00%	
2024-07-13 00:00:00	22,811	2024-07-13 00:00:00	0.00%	75.01%	0.00%	9.99%	0.00%	0.00%	0.00%	15.00%	
2024-07-14 00:00:00	17,846	2024-07-14 00:00:00	0.00%	76.11%	0.00%	9.82%	0.00%	0.00%	0.00%	14.07%	
2024-07-15 00:00:00	19,237	2024-07-15 00:00:00	0.00%	74.89%	0.00%	10.13%	0.00%	0.00%	0.00%	13.11%	
2024-07-16 00:00:00	15,304	2024-07-16 00:00:00	0.00%	75.01%	0.00%	10.00%	0.00%	0.00%	0.00%	14.99%	

**From:** McCorquodale, Brenda  
**Sent:** Wednesday, July 17, 2024 12:08 PM  
**To:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
**Cc:** Newcomb, Reagan  
**Subject:** RE: For Brenda's Email Approval - Agenda items for ROCs July 17th - Due by 10am July 17th  
**Attachments:** UPDATED ROCS TEMPLATE with Mort Event info July 17 2024 BMc.docx

Approved with edits. Reagan I have a dr appt at 3. Can you present this one at ROCs?

Brenda  
Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865  
Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

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**From:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Wednesday, July 17, 2024 8:59 AM  
**To:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** For Brenda's Email Approval - Agenda items for ROCs July 17th - Due by 10am July 17th

Good Morning Brenda,

Please find the ROCs submission attached above as approved by Reagan for today's ROCs meeting.

Seeking your approval by 10 am today, if possible, please.

Thank you, Paula

---

**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Wednesday, July 17, 2024 8:53 AM  
**To:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For Reagan A/DIR OPS AMD Email Approval - Agenda items for ROCs July 17th -

Hi Paula,

Please find final ROCS submission attached; I approve.

Thanks,

Reagan

---

**From:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 16, 2024 4:07 PM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** For Reagan A/DIR OPS AMD Email Approval - Agenda items for ROCs July 17th -

Hi Reagan,  
Please find the ROCs returned with Nathan's edits for your approval please by 8:00 am tomorrow July 17<sup>th</sup>.  
Thank you, Paula

---

**From:** Blasco, Nathan <[Nathan.Blasco@dfo-mpo.gc.ca](mailto:Nathan.Blasco@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 16, 2024 4:03 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For Reagan A/DIR OPS AMD Email Approval - Agenda items for ROCs July 17th -

Here you go.

Nathan

---

**From:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 16, 2024 12:54 PM  
**To:** Blasco, Nathan <[Nathan.Blasco@dfo-mpo.gc.ca](mailto:Nathan.Blasco@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** FW: For Reagan A/DIR OPS AMD Email Approval - Agenda items for ROCs July 17th -

Hi Nathan,

Please note Reagan's edits below for your review and update as soon as possible please.

Thank you, Paula

---

**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 16, 2024 12:14 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For Reagan A/DIR OPS AMD Email Approval - Agenda items for ROCs July 17th -

Hi Paula,

Thanks for this. I've reviewed and made some edits. Please share with Nathan for his review and update.

Reagan Newcomb

A/Director, Operations, Aquaculture Management, Fisheries Management Branch, Pacific Region  
Fisheries and Oceans Canada, Government of Canada  
[reagan.newcomb@dfo-mpo.gc.ca](mailto:reagan.newcomb@dfo-mpo.gc.ca) | 778-268-2854

Directeur/l, Opérations, Gestion de l'aquaculture, Direction de la gestion des pêches, Région pacifique  
Pêches et Océans Canada, Gouvernement du Canada  
[reagan.newcomb@dfo-mpo.gc.ca](mailto:reagan.newcomb@dfo-mpo.gc.ca) | 778-268-2854

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**From:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 16, 2024 11:56 AM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** For Reagan A/DIR OPS AMD Email Approval - Agenda items for ROCs July 17th -

Hi Reagan,

Please find an agenda item for ROCs tomorrow from Nathan attached above. All other managers had a nil response.

For your email approval by 1pm today if possible please?

Thank you, Paula

---

**From:** Blasco, Nathan <[Nathan.Blasco@dfo-mpo.gc.ca](mailto:Nathan.Blasco@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 16, 2024 11:52 AM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Subject:** FW: REMINDER: Call-out for Agenda items for ROCs July 17th - Due by 10am July 16th

Sorry Paula, I do have some bullets.

The ROCs template with those bullets is attached.

Nathan

---

**From:** Blasco, Nathan  
**Sent:** Tuesday, July 16, 2024 10:37 AM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Subject:** RE: REMINDER: Call-out for Agenda items for ROCs July 17th - Due by 10am July 16th

NIL for AEO/FH

Nathan

---

**From:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 16, 2024 8:06 AM  
**To:** DFO.F PAC AMD Managers / Gestionnaires DGA PAC F.MPO <[DFO.FPACAMDManagers-GestionnairesDGAPACF.MPO@dfo-mpo.gc.ca](mailto:DFO.FPACAMDManagers-GestionnairesDGAPACF.MPO@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** REMINDER: Call-out for Agenda items for ROCs July 17th - Due by 10am July 16th

Good Morning,

Just a reminder of a call out for agenda items for tomorrow's ROCs meeting. I have received NIL reports from Reagan and Kerra.

Could you please confirm a Nil Report or provide any agenda items by 10 am today.

Thank you, Paula

---

**From:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Wednesday, July 10, 2024 3:35 PM  
**To:** DFO.F PAC AMD Managers / Gestionnaires DGA PAC F.MPO <[DFO.FPACAMDManagers-GestionnairesDGAPACF.MPO@dfo-mpo.gc.ca](mailto:DFO.FPACAMDManagers-GestionnairesDGAPACF.MPO@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** Call-out for Agenda items for ROCs July 17th - Due by COB July 15th for Brenda and Reagan's approvals

Hi All,

Please find a call out for agenda items for next week's ROCs meeting scheduled for Wednesday, July 17th.

Requesting agenda items to be returned for Reagan and Brenda's review by COB Monday, July 15th please.

NIL REPORTS are required.

Thank you, Paula

Paula Delaney  
Executive Assistant | Adjointe exécutive  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada - Pacific Region | Pêches et Océans Canada - Région du Pacifique  
[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)

---

**From:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Thursday, June 27, 2024 9:27 AM

**To:** DFO.F PAC AMD Managers / Gestionnaires DGA PAC F.MPO <[DFO.FPACAMDManagers-GestionnairesDGAPACF.MPO@dfo-mpo.gc.ca](mailto:DFO.FPACAMDManagers-GestionnairesDGAPACF.MPO@dfo-mpo.gc.ca)>

**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>

**Subject:** Call-out for Agenda items for ROCs July 3rd - Due by 10am July 2nd for Brenda and Reagan's approvals

Hi All,

Please find a call out for agenda items for next week's ROCs meeting scheduled for Wednesday July 3rd.

Requesting agenda items to be returned for Reagan and Brenda's review by 10am July 2nd please.

NIL REPORTS are required.

Thank you, Paula

Paula Delaney

Executive Assistant | Adjointe exécutive

Aquaculture Management / Gestion de l'aquaculture

Fisheries Management Branch / Direction de la gestion des pêches

Fisheries and Oceans Canada - Pacific Region | Pêches et Océans Canada - Région du Pacifique

[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)

## Weekly Input: Briefing Note To Minister & MinO Briefing Schedule - [July 17, 2024]

Issue	Key Information	Lead Sector / Region	Mino Briefing Request
Provide a short description of the issue. <i>(1 sentence max.)</i>	Provide a short overview of the issue: what is it; why is this coming forward now (e.g. what is the departmental implication); key dates; actions taken or planned by the Department (including but not limited to the drafting of memorandum, meetings with stakeholders or other government officials). If a MINO briefing is requested, indicate why one is needed now. <i>(4 bullets, 1 line each max. Spell out acronyms in first usage)</i>		Is your Sector / Region requesting a MINO briefing? <i>(Please check off the relevant box)</i>
Harmful Algal Blooms in Queen Charlotte Strait area of BC causing significant mortality event at Mowi's Bell Island facility	<ul style="list-style-type: none"> <li>On June 12, 2024, Mowi Canada West reported elevated mortality at the company's Bell Island facility in the Queen Charlotte Strait. In what continues to be a challenging year for harmful algal blooms, <b>in the past week this one facility lost approximately 50%, or 300 000 fish</b>. The event is related to a bloom of <i>Chaetoceros sp.</i>, which causes mechanical damage to fish gills.</li> <li>While wild fish will swim to avoid these blooms, fish in aquaculture facilities are not able to escape the impacts. Companies do try to mitigate impacts of these blooms through tarping and introducing supplemental oxygen, but this is not feasible at all locations and is not always successful.</li> <li>Mowi is applying for an urgent fish transfer licence to move surviving Bell Island fish to a location in hopes of <b>reducing mortalities</b>.</li> <li><b>The mortality event will be publicly reported and may generate public and/or media interest.</b></li> </ul>	PAC	Not required <input checked="" type="checkbox"/> Next week <input type="checkbox"/> Week after <input type="checkbox"/>
	<ul style="list-style-type: none"> <li></li> </ul>		Not required <input checked="" type="checkbox"/> Next week <input type="checkbox"/> Week after <input type="checkbox"/>
	<ul style="list-style-type: none"> <li></li> </ul>		Not required <input checked="" type="checkbox"/> Next week <input type="checkbox"/> Week after <input type="checkbox"/>

**From:** Manchester, Howie  
**Sent:** Thursday, July 18, 2024 7:27 PM  
**To:** Price, Derek  
**Cc:** Rutherford, Emily (DFO/MPO); Barry, Melanie  
**Subject:** s713 - Bell to Duncan, Doyle, Shelter Bay, Bull Harbour

Hi Derek and Emily,

MOWI Canada West proposes to transfer of up to 280,000 juvenile Atlantic Salmon (~330g) from their marine facility Bell Island (ref#892), located in AMZ 9, in Goletas Channel near Port Hardy, to their following marine sites: Duncan (ref#1293), Doyle (ref#1288), Shelter Bay (ref#1350), and Bull Harbour (ref#7053) – all located in the Port Hardy area. The transfers are proposed for July 22, 2024 or as soon as possible as the site is experiencing an ongoing mortality event due to a harmful plankton bloom that began in early June. No CFIA diseases have been detected from this site or group of fish. All fish have had the standard vaccination against Furunculosis, Vibriosis, IHN, BKD and M.viscosa.

Mortality remains high and is **primarily attributed** to harmful plankton with **some due to mouth rot**. Treatment for mouth rot is not possible as the fish are not feeding due to the harmful plankton. As of July 14<sup>th</sup> **the site has lost 341 912 fish since the plankton event began, over 50 % of the initial population.**

DFO fish health biologist were on site July 10<sup>th</sup> to conduct a fish health audit and samples were collected from fresh moribund and on site records were reviewed. Fish observed in the pens were on the surface and easily startled, many moribund could be seen along the edges of the pens. Ten samples were collected, 3/10 were observed to have yellow plaques consistent with a mouth rot infection and all showed gill pathology that would be consistent with a harmful plankton such as Chaetoceros. Bacterial samples resulted in **no significant growth** and PCR for the six pathogens ( IHN, VHS, ISA, IPN, SAV and Psa) were all negative. **Histology results are pending.**

Industry submitted pre transfer screening results for samples collected on June 25<sup>th</sup>, PCR for IHN, ISA, VHS were all negative, no significant growth resulted in bacterial media and histology indicated that Chaetoceros spp spines could be seen in the gills as well as gill pathology consistent with damage from this harmful plankton. **Some pathology was noted consistent with Tenacibaculum infection in one of six samples.**

**[REDACTED] but Mel will check to see if any histology results are available for samples we sent earlier in the week, its likely we won't get these till next week but we'll see.**

A more detailed summary of the health review of these fish can be seen at: [s713 - AEO Summary Bell Island to Duncan, Doyle, SB and BH.docx](#)

All other documents related to this transfer request can be found at: [..\s713 - Bell to Various Mowi sites](#)

Please let myself or Mel know if you have any questions.

Thanks

Howie

Howie Manchester BSc

Senior Aquatic Science Biologist

Fisheries and Oceans Canada / Peches et Oceans Canada

Aquaculture Management Division / Gestion de l'aquaculture

Aquaculture Environmental Operations - Fish Health

#103 2435 Mansfield Drive

Courtenay, B.C

Cell: 250 331 1927

Fax: 250 703 0921

**No information has been severed or removed from this page**



BC Centre for Aquatic Health Sciences

ISO/IEC 17025:2017 ACCREDITED FOR RT-qPCR OF:  
PRV, IHNV, ISAV, VHSV, IPNV, *R.SALMONINARUM*

## RT-qPCR REPORT

**BC CAHS #24-0336**

Report submitted by

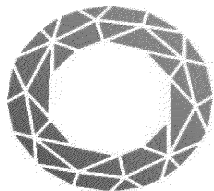


BC Centre for Aquatic Health Sciences  
871A Island Highway  
Campbell River, BC  
V9W 2C2

**Thursday, July 18, 2024**

Report submitted to:

Fisheries and Oceans  
Aquaculture Management Division  
#103-2435 Mansfield Drive  
Courtenay, BC  
V9N 2M2  
PH: (250) 331-1927



# CALA

Testing  
Accreditation No. A4144

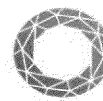
s.19(1)

BC CAHS is ISO/IEC 17025:2017 accredited  
by CALA for RT-qPCR screening of:  
PRV, IHNV, ISAV, VHSV, IPNV,  
*R.salmoninarum*

000048



# RT-qPCR Assay Report



**CALA**  
Testing  
Accreditation No. A4144

**Client DFO**  
**Attention**  
**Purchase Order** 4500066629  
**Client case #** 2024-073  
**Sampling location** n/a  
**Sampling date** 2024-07-10  
**# of samples** 10 = 2 pools  
**Project #** Diagnostic

**CAHS submission #** 24-0336  
**CAHS receipt date** 16-Jul  
**Sample submitter** Howie Manchester  
**CAHS Technician** [REDACTED]  
**Reporting Date** 18-Jul  
**Report approval** [REDACTED]  
**Assay Location** BC CAHS  
**CAHS assay #** 81, 92, 117

**Report comments** 10 multi organ samples submitted for RT-qPCR (IHNv) Infectious Hematopoietic Necrosis virus, (IPNV) Infectious Pancreatic Necrosis virus, (ISAv) Infectious Salmon Anemia, (Psal) Piscirickettsia salmonis, ((VHSv) Viral Hemorrhagic Septicemia virus and (Sav) Salmon Alpha virus. Pooled in groups of 5 equalling 2 pools.

## RT-qPCR Results

	Sample Description	IHN	IPN	ISA	VHS	Psal	SAV
		Ct value	Ct value	Ct value	Ct value	Ct value	Ct value
1	Pool #1	U, U	U, U	U, U	U, U	U, U	U, U
2	Pool #2	U, U	U, U	U, U	U, U	U, U	U, U
	Water Blank	U, U	U, U	U, U	U, U	U, U	U, U
	Positive Control	24.3, 24.7	30.2, 30.3	28.4, 28.2	24.8, 24.8	30.9, 31.0	30.2, 30.0
	Assay Cut-off (Ct value)	35.0	34.0	36.0	38.0	36.0	n/a

U = Undetermined

s.19(1)

**From:** Liutkus, Joanne  
**Sent:** Friday, July 19, 2024 4:20 PM  
**To:** McCorquodale, Brenda  
**Subject:** RE: Mino Look ahead follow-up - SOMASS CLOSURE and BELL ISLAND Fish die-off

Yes, that's right. I think Krista was thinking it was in the March – June quarter.

Joanne

---

**From:** McCorquodale, Brenda <Brenda.McCorquodale@dfo-mpo.gc.ca>  
**Sent:** Friday, July 19, 2024 12:50 PM  
**To:** Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>  
**Subject:** RE: Mino Look ahead follow-up - SOMASS CLOSURE and BELL ISLAND Fish die-off

If it is quarterly with a quarterly lag wouldn't it be a July-Sep quarter that would be posted by Dec ?

Brenda  
Brenda McCorquodale (she/ her/ elle)

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A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865  
Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>  
**Sent:** Friday, July 19, 2024 10:34 AM  
**To:** McCorquodale, Brenda <Brenda.McCorquodale@dfo-mpo.gc.ca>  
**Subject:** RE: Mino Look ahead follow-up - SOMASS CLOSURE and BELL ISLAND Fish die-off

For this report in particular, it's reported quarterly with a quarter lag, so it would be targeted for posting by the end of the summer. Krista noted though that in these reports its only that the event occurred that's posted, not the total number of fish that died.

More broadly on reporting, Krista updated that she thinks everything is on track now with the work she's done with Katie over the past couple of weeks. Most work now is administrative with Comms so she's expecting that within two weeks the reports will be mostly caught up and they'll be able to keep on top with Katie leading. We've been meeting to talk through what each report entails and to make suggestions on improvements and utility. That will come to you after we meet one last time next Tuesday.

Joanne

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**From:** McCorquodale, Brenda <Brenda.McCorquodale@dfo-mpo.gc.ca>

**Sent:** Friday, July 19, 2024 9:52 AM

**To:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>

**Subject:** RE: Mino Look ahead follow-up - SOMASS CLOSURE and BELL ISLAND Fish die-off

Ok pls – I need an estimate of when it will be published asap pls.

We also need a plan for catching up these reports, even if it includes a requirement for more support. They can't just get behind without us discussing whether or not that matters, and looking at options to redeploy

Di Wan in Science also offered to help us develop some computer programs to help automate some of the QA/QC we are currently doing manually. Wan, Di <[Di.Wan@dfo-mpo.gc.ca](mailto:Di.Wan@dfo-mpo.gc.ca)>

Brenda

Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale

Aquaculture Management / Gestion de l'aquaculture

Fisheries Management Branch / Direction de la gestion des pêches

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250-902-8865

Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>

**Sent:** Friday, July 19, 2024 9:35 AM

**To:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>

**Subject:** RE: Mino Look ahead follow-up - SOMASS CLOSURE and BELL ISLAND Fish die-off

The report is supposed to be made quarterly but in looking online, the most recent posted was last summer. This is one of the reports that has been behind. I know Katie has been working diligently to get these moving again and has made some progress. She's out of the office today and Krista [REDACTED] but I'll follow to see if she has an idea of when the updates would be posted.

---

**From:** [McCorquodale, Brenda <Brenda.McCorquodale@dfo-mpo.gc.ca>](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

**Sent:** Friday, July 19, 2024 9:22 AM

**To:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>

**Subject:** FW: Mino Look ahead follow-up - SOMASS CLOSURE and BELL ISLAND Fish die-off

**Importance:** High

s.19(1)

When will the Bell Island mortality event be publicly reported?

Brenda

Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale

Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
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Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** Thomson, Andrew <[Andrew.Thomson@dfo-mpo.gc.ca](mailto:Andrew.Thomson@dfo-mpo.gc.ca)>

**Sent:** Friday, July 19, 2024 9:15 AM

**To:** Davis, Neil <[Neil.Davis@dfo-mpo.gc.ca](mailto:Neil.Davis@dfo-mpo.gc.ca)>; McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>; Gotch, Steve (he, him / il, lui) (DFO/MPO) <[Steve.Gotch@dfo-mpo.gc.ca](mailto:Steve.Gotch@dfo-mpo.gc.ca)>; Freeman, Sheila (she, her / elle, la) (DFO/MPO) <[Sheila.Freeman@dfo-mpo.gc.ca](mailto:Sheila.Freeman@dfo-mpo.gc.ca)>

**Cc:** Yook, Alena (DFO/MPO) <[Alena.Yook@dfo-mpo.gc.ca](mailto:Alena.Yook@dfo-mpo.gc.ca)>; Rakkar, Jasmine (she, her / elle, la) (DFO/MPO) <[Jasmine.Rakkar@dfo-mpo.gc.ca](mailto:Jasmine.Rakkar@dfo-mpo.gc.ca)>

**Subject:** Mino Look ahead follow-up - SOMASS CLOSURE and BELL ISLAND Fish die-off

**Importance:** High

From the **MINO look ahead this week, there were a couple of follow-ups requested.**

- 1) On the Somass Sockeye Closure, Associate DM and MINO want to be kept informed as to the closure of the Somass River fishery due to high temps and any impacts on FSC, Comm or Rec fisheries, or if the fishery does proceed with cooler temps.
- 2) On the **Bell Island Die Off- CoS wanted to know when the die off would be publicly released, and what the delay is for that type of information to be released / available on the DFO website on Aquaculture Information.**

Andrew J L Thomson  
Regional Director Science | Directeur régionale des sciences  
Pacific Region | Région du Pacifique  
Fisheries and Oceans Canada | Pêches et Océans Canada

Alternate Commissioner | Commissaire suppléant – Pacific Salmon Commission

# Fish health review

ITC number: s713

Date of review: July 19, 2024

Reviewer: Dr. Derek Price

## Application

MOWI Canada West proposes to transfer 280,000 Atlantic Salmon smolt+ from their marine facility Bell Island (ref# 892), located in FHZ 3.4 in Goletas Channel near Port Hardy, to their Duncan (ref# 1293), Doyle (ref# 1288), Bull Harbour (ref# 7053), and Shelter Bay (ref# 1350) marine sites, also located in FHZ 3.4. The transfers are proposed for July 22, 2023.

## Attestation

The Fish Health Attestation (FHA) was signed on July 16, 2024 by [REDACTED]

The fish to be transferred did experience mortalities, equal to or greater than 0.05% per day for more than four consecutive days during the 30 days prior to signing of the FHA. **The veterinary diagnosis attributed to the mortality is Harmful plankton, as diagnosed through clinical observations, environmental sampling, and laboratory sampling to rule out other infectious disease.** Anticipated management actions include the transfer of fish to a different site with better environmental conditions (this is the intent of this transfer application).

Within the 30 days prior to signing the FHA, there are been a number of laboratory tests. **With the exclusion of Mouth rot, all tests for pathogens of concern were negative.**

Fish have been vaccinated with Alphaject 5-3 (*Aeromonas salmonicida*, *Vibrio anguillarum*, *V. ordalii*, *V. salmonicida*, and *Moritella viscosa*), Apex for Infectious haematopoietic necrosis (IHN) and Renogen for *Renibacterium salmoninarum*.

There has been **no record** of CFIA reportable disease at the facility.

## Mortality

A recent mortality report for June 16-July 15, 2024 was submitted by MOWI. In this period, mortality numbers have been very high, following a plankton related (*Chaetoceros spp*) mortality event on June 12, 2024. In the last 30 days, sitewide mortalities have ranged from 0.15% to 7.3% per day, and the elevated mortality in this period is attributed to "Env-algal blooms", "Mouthrot", "old" and "non-performers". **The site has also been treating for mouthrot since April 2024, and an ongoing fish health event has been reported.**

## Mortality Events

s.19(1)

There has been one ongoing mortality event for this cycle of fish. On June 12, 2024 a mortality event due to a plankton bloom (*Chaetoceros spp.*) was reported. This event is ongoing. As of the 30 day follow-up on July 14, the site has lost 341,912 fish since the event began.

#### Fish Health Events

A Fish Health Event for mouthrot has been reported as ongoing at Bell Island, between April 2024-July 2024 (ongoing as of July 10, 2024). Fish were treated with Florfenicol.

#### Sea Lice

There have been no sea lice exceedance events for this cycle of fish. Most recent counts are from July 9, 2024, with an average of 0.32 motiles.

#### Sampling by Industry:

##### RT-qPCR

On June 25, 2024, 6 multiorgan pools (5 fish per pool; 30 fish total) were collected. These were submitted to CAHS and were all negative for all targets (IHNv, ISAv, and VHSV). Bacteriology was completed in house.

##### Bacteriology

On June 25, 2024 MOWI sampled 30 fish for bacteriology on TSA, Blood and TSA +2%. There was creamy, smooth growth on fish #10 on the TSA +2% plate and this was submitted to AHC for ID on July 3, 2024. This was identified as *Psychrobacter sp.*

##### Histology

On June 25, 2024 MOWI sampled 6 fish for histology. These fish were submitted to AHC and slides were read by [REDACTED]. The Final comment was:

“Consistent with the clinical history, five of the fish have *Chaetoceros spp.* spines in the gills, and four of these fish have lesions of sufficient severity to have contributed to significant morbidity. None of the fish have infectious disease that might preclude their transfer. Filamentous bacteria associated with ulcerative branchitis in fish #5 are common in the environment, so transferring infected fish would simply move the bacteria to another place where they are already common in the environment.

Fish #s 2,3, 5, and 6 have severe gill lamellar epithelial hyperplasia and fusion, with intralesional *Chaetoceros sp.* diatoms. *Chaetoceros concavicornis*, *C. convolutus*, and a *Corethron sp.* have been associated with mortality of salmon reared in seawater netpens at numbers as low as 5/mL (Taylor and Harrison 2002). The space between the base of gill filaments often contains moderate numbers of unstained structures (square in cross section) that are consistent with the diatom *Chaetoceros*. Chains of cell bodies are about 25 µm in diameter, and individual spines/setae are about 3.5 µm in diameter. Mortality due to *Chaetoceros* can occur within a few days of exposure, because of physical damage to the gills and the resultant inflammatory response. Affected fish are also more vulnerable to *Vibrio* infections. Larger fish tend to be more susceptible than small fish. Characteristic gill lesions include mucous cell hyperplasia, lamellar epithelial cell hyperplasia and necrosis, and variable numbers of neutrophils. Diatoms and their

processes are on the surface of the gill epithelium and sometimes entrapped by multinucleate giant cells. [Source: Kent, M.L., and T.T. Poppe. 1998. Diseases of seawater netpen-reared salmonid fishes. Quadra Printers, Ltd. Nanaimo, B.C., Canada. [https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40619734\\_Part1.pdf](https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40619734_Part1.pdf)]

Fish #5 also has ulcerative branchitis, with filamentous bacteria. This form of ulcerative branchitis most commonly affects the tips of gill filaments that have severe lamellar hyperplasia. The pathogenesis involves necrosis of the tips of the filaments, sloughing of the epithelium, and infiltration of the remaining necrotic tissues by filamentous bacteria (probably *Tenacibaculum maritimum* or related species). This lesion seems to be a variant of mouthrot, and it is probably precipitated by a combination of underlying stress (e.g., handling, suboptimal water quality, toxic algae, high density, etc.).

Fish #s 1 and 4 have no microscopic lesions of sufficient severity to explain significant morbidity. Either the fish were healthy when sampled, their lesions are more significant than they seem, or morbidity resulted from (i) an acute process that did not change tissue morphology (e.g., sudden changes in water quality, suffocation, or exposure to certain toxins), or (ii) a process that changed the morphology of organs or parts of organs that were not included for examination.”

#### DFO Audits

There has been one DFO Fish Health audits at Bell this cycle. A total of 10 fish were sampled during this audit on July 10, 2024. DFO staff were on site and the following pen observations were noted: staff noted that while on site fish were easily started, and there were ~1000 moribund fish in each pen. Many herring were also observed in the pens. The site was experiencing elevated mortality due to plankton (*Chaetoceros spp.*). At the time of the audit, the site had undergone 5 Florfenicol treatments for mouthrot. The most recent treatment was stopped to due environmental conditions. Mortality, sea lice, and treatment records were viewed on site along with prescriptions, transfer records, dive dates, aquaculture licence, and environmental data.

July 10, 2024: Ten fish were collected from a daily mortality of 7446 fish. During necropsy, FH staff noted yellow plaque on the jaw of 3/10 fish, 5/10 displayed gill damage and all 10 had gill pathology (hemorrhaging, pale and or/mucous overproduction). The daily mortalities were comprised primarily of “algal bloom” (4603 mortalities), “non-performers” (1389 mortalities) and “mouthrot” (1358 mortalities)

On July 16, 2024, histopathology samples were submitted to AHC and virology samples for RT-qPCR analysis (SAV, IHN, IPN, ISA, SRS, VHS) were submitted to CAHS. Results were all “undetermined” for SAV, IHN, IPN, ISA, SRS and VHS, and bacteriology yielded no significant growth.

#### Considerations

All documents were reviewed by DFO Aquaculture Biologists and DFO veterinarians.

**Mortalities at the site have been elevated due to an ongoing environmental event caused by *Chaetoceros* species of harmful plankton, with mouth rot acting as a contributing**

**factor. Management actions to mitigate mouth rot have been limited, as harmful plankton prevented the latest round of in-feed antibiotic treatment. Non-infectious mortalities at the site remain elevated due to the ongoing environmental event. This will likely be resolved by transferring fish to another site, which is the primary purpose of this transfer. Furthermore, improved environmental conditions would allow to resume in-feed treatment and appropriate management of mouthrot.** Significant laboratory testing has been done by the company, with the exception of mouth rot, **all lab results have been negative for pathogens of concern.**

*T. maritimum is a bacterium that is ubiquitous in the marine environment. It is common for Atlantic salmon that are transferred to the marine environment from freshwater to demonstrate clinical signs (yellow bacterial plaques in and around the mouth) of mouth rot. Antibiotic treatment is effective at managing this disease. Evidence of clinical signs diminishes with treatment and resolves within 6 months of entry.*

**Derek Price, MV, PhD**

**Epidemiologist - Pacific Region**

Fisheries and Oceans Canada | Pêches et Océans Canada

Aquaculture Environmental Operations - Fish Health



Ministry of Agriculture and Food

# Animal Health Centre

AAVLD - Accredited Laboratory

Ministry of Agriculture and Food  
1767 Angus Campbell Road  
Abbotsford BC V3G 2M3

Telephone: (604) 556-3003  
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Email: PAHB@gov.bc.ca

## Final Report AHC Case: 245297

Report Date **2024-07-19/1:37 PM** Last Updated **2024-07-19/1:33 PM** Coordinator **Michael Pawlik**

### Submission Info

Contacts	Contacts	Other
Owner <b>Fisheries and Oceans Canada DFO</b>	Ref Vet <b>Rutherford, Dr. Emily</b>	Client Ref # <b>2024-073</b>
Submitter <b>Howie Manchester- DFO</b>	Bill To <b>Fisheries and Oceans Canada DFO</b>	Date submitted <b>2024-07-17</b>
Phone <b>(250) 331-1927</b>		Date Collected <b>2024-07-10</b>

### Case Demographics

Farm/Owner	Animal Info
Address 1 <b>103-2435 Mansfield Dr</b>	ID
Address 2	Taxonomy <b>Salmo salar</b>
City <b>Courtenay V9N 2M2</b>	Death
Location	

### Case History

Information	Metrics
Reason for test <b>not given</b>	# in Group <b>0</b>
Primary problem <b>not given</b>	Weight in grams <b>600</b>
Sample source <b>not given</b>	

Environment: Saltwater  
 History:  
 Histopathology  
 Histicassettes: # 2024-073 10 (A,B,C)  
 Please invoice and we will pay via credit card.  
 Other Comments:  
 Please FAX us a preliminary report after the case has been received and entered into VADDS.

*\*All histories are copied verbatim from the submission form*

### Sample Information

Special Project  Legal Case   
 Insurance case

### Staff Comments

**Specimens Received:** Formalized Tissues

**Tests Requested:** Histopathology: Histopathology of 10 fish. Preserved in formalin, submitted in water  
**\*Rush\* as per email from Howie**

### Histopathology

Cassettes with gill and skin were immersed for 2 hours in Protocol Decalcifier B (10% hydrochloric acid solution), rinsed in water, and processed routinely into paraffin with the other cassettes.

Microscopic findings are scored as 0, 1, 2, or 3 which represent scores of increasing severity. These scores are based on arbitrary criteria that may or may not represent the significance of the lesion to the health of the fish.

Detailed histopathology results are reported on the attached spreadsheet.

## **AHC 2024-5297**

### **Comments:**

All 10 fish had evidence of moderate to severe gill disease with large numbers of *Chaetoceros* sp. between gill filaments. The gill lesions were often associated with secondary bacterial infection and tissue necrosis.

Most of the fish also had evidence of necrotizing enteritis with large numbers of intralesional bacteria.

Three mandibles were included in the submission. All had evidence of irritation, erosion, and ulceration. However, only one mandible had large numbers of intralesional bacteria (SUF).

## **Attachments on this case**

DFO Files



Michael Pawlik  
D.V.M., MVSc., Diplomate, A.C.V.P.

These results relate only to the animals, items or samples tested that were provided by the customer and are conditional to the state in which they were received.  
Any opinions and interpretations in this report are based on case laboratory data and professional knowledge and experience.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The above material is intended only for the use of the individual to whom it is addressed, as it may contain confidential or personal information that is subject to provisions of the Freedom of Information and Protection of Privacy Act. This material must not be distributed, copied or disclosed to other unauthorized persons. If you have received this transmission in error, please contact the sender immediately by telephone.

**END OF REPORT**

This report supersedes all previously communicated reports

## Liutkus, Joanne

---

**From:** Delaney, Paula (DFO/MPO)  
**Sent:** Monday, July 22, 2024 12:43 PM  
**To:** Coupe, Deja; Liutkus, Joanne  
**Subject:** FW: Response to Brenda from Derek Price - For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

**Importance:** High

Thank you Deja,  
I have sent to Brenda for her urgent approval.  
Paula

---

**From:** Delaney, Paula (DFO/MPO)  
**Sent:** Monday, July 22, 2024 12:42 PM  
**To:** **McCorquodale, Brenda** <Brenda.McCorquodale@dfo-mpo.gc.ca>  
**Cc:** Khan, Danieh (DFO/MPO) <Danieh.Khan@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>  
**Subject:** Response to Brenda from Derek Price - For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178  
**Importance:** **High**

Hi Brenda,

Please find the response to your questions below from Derek Price.

Hi Deja,

There are **two main causes for the ongoing nature of Tenacibaculum infections at the farm level here in BC, multiple entries and re-infection**. As you may know, *Tenacibaculum maritimum* (Tmar) and other species are widely distributed in the marine environment so fish are usually exposed as soon as they are stocked in marine farms. Fish are normally treated for Tmar shortly after stocking and usually respond well to treatment. However, not all the fish are stocked at the same time, so multiple groups of fish are exposed at different times and must be subsequently treated. Additionally, after the treatments end and fish are recovered, they may still be susceptible to new infections with the bacteria and may require additional treatments.

Regarding the option of waiting until fish stop shedding the bacteria, fish develop some resistance to Tmar with subsequent exposure, but it takes some time. We think that leaving the fish untreated is unlikely to lead to the resolution of the infection in the short run. **With this level of Chaetoceros, however, it is difficult to assess the contribution of mouthrot to mortality or the level of shedding and would be even harder to anticipate the trend.**

We think that it is in everyone's best interest to move these fish to a more suitable environment to allow treatment to be delivered to these fish and limit the impact of this bacteria in this population's health and the environment. As Brenda correctly identifies, our estimation of risk to wild salmon arising from this transfer is

informed by the conclusions outlined in the CSAS document, so if the conclusions of that study were different, we would have a harder time recommending this transfer.

Regards,

Derek Price, MV, PhD

Seeking your email approval by today July 22<sup>nd</sup>.

Thank you, Paula

---

**From:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 12:38 PM  
**To:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>; Price, Derek <[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178  
**Importance:** High

Hello Paula,

Please find FH reply below.

Cheers,  
Deja

---

**From:** Price, Derek <[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 12:37 PM  
**To:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>; Rutherford, Emily (DFO/MPO) <[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)>  
**Cc:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

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Regards,

Derek Price, MV, PhD

Epidemiologist, Aquaculture Fish Health  
Aquaculture Management Division / Fisheries and Oceans Canada  
[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)  
Tel: 250-703-0929 Cell: 250-850-9362



Canada

---

**From:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:38 AM  
**To:** Rutherford, Emily (DFO/MPO) <[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)>; Price, Derek <[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)>  
**Cc:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178  
**Importance:** High

Hello FH team,

Can you please address Brenda's questions below for the urgent MOWI application.

Thank you,  
Deja

Deja Coupe (she/her)  
Governance Officer | Agent de gouvernance  
Aquaculture Policy | Politique de l'aquaculture  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Tel. | Tél. (236) 255-3461  
[deja.coupe@dfo-mpo.gc.ca](mailto:deja.coupe@dfo-mpo.gc.ca)

*I respectfully acknowledge that I live, work and play on the traditional, unceded territories of the K'ómoks First Nation.*



---

**From:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:35 AM  
**To:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Cc:** Khan, Danieh (DFO/MPO) <[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Deja,  
Please note Brenda's email below with questions ...  
Thank you, Paula

---

**From:** **McCorquodale, Brenda** <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:29 AM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Can AEO provide clarity related to the Tenacibaculum and the medication which has been administered as well as the six month 'active period' for the pathogen.

Logically it would seem that the risk of moving the disease around would be lower if we could wait until the fish were not actively shedding it?

What are their thoughts on this. I realize that it is somewhat of a moot point if the science advice says that it does not cause disease in wild fish populations. How does this get weighted against the risk of the fish getting more sick with other things due to the stress of the algal bloom. Are our SMEs comfortable and confident this is the right approach?

Brenda  
Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865  
Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

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**From:** Delaney, Paula (DFO/MPO)  
**Sent:** Friday, July 19, 2024 4:30 PM  
**To:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>

**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Brenda,

Seeking your urgent approval for the above ITC. Reagan has approved. If we think this could happen today, I'll stay on and email MOWI if the approval comes in.

Please note the rationale from AP: "Thanks everyone for working quickly on this. This year we had a series of urgent approval for transfers due to environmental impacts. Something we'll have to think about for the future as things continue to warm up." ~ Raquel

Reagan has approved and signed as above.

For your email approval as soon as possible. Transfer is anticipated for Monday July 22<sup>nd</sup>.

Thank you, Paula

---

**From:** Newcomb, Reagan <Reagan.Newcomb@dfo-mpo.gc.ca>

**Sent:** Friday, July 19, 2024 3:58 PM

**To:** Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>

**Cc:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>; Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>

**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks Joanne – approved package attached. It looks as though my signature is required on the memo so I've attached a PDF with my e-signature on it as well.

Paula, please route up to Brenda for onward approval by RDFM.

Thanks,  
Reagan

---

**From:** Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>

**Sent:** Friday, July 19, 2024 3:49 PM

**To:** Newcomb, Reagan <Reagan.Newcomb@dfo-mpo.gc.ca>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>

**Cc:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>; Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>

**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks, Reagan. I would just remove the sentence "Ghi-ya has completed four full production cycles in that time". It seems like a piece of context is missing previous to this that had been removed.

I've attached the updated.

Joanne

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**From:** Newcomb, Reagan <Reagan.Newcomb@dfo-mpo.gc.ca>  
**Sent:** Friday, July 19, 2024 3:45 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>; Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>; Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks Raquel.

Not to be difficult on that last comment, but the sentence simply reads strangely with “in that time” at the end, and not frame of reference anywhere in the section, let alone the entire document, to tell the reader what timeframe we are talking about:

“The Ghi-ya aquaculture facility is located near Hope Island in the northern extent of Port Hardy, in AMZ PH-03. Although there are more facilities near Port Hardy, the closest operational facility to Ghi-ya is another Mowi site, Wanx Talis. Ghi-ya has completed four full production cycles in that time.”

If you know what the timeframe is in which the ‘four full production cycles’ have been completed, we can just replace “in that time” with that. Do you know what this timeframe is?

Reagan

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>  
**Sent:** Friday, July 19, 2024 3:34 PM  
**To:** Newcomb, Reagan <Reagan.Newcomb@dfo-mpo.gc.ca>; Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>; Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Reagan,

Thank you for your fresh eyes on this.

These templates have been used for several years and we will review and update prior to the next salmon application flurry, in mid-August.

For now, due to the urgency, I've removed the statement about ABAM and left in the previous comment. We appreciate your comments and edits and will incorporate into future memos.

Thank you,  
Raquel

---

**From:** Newcomb, Reagan <Reagan.Newcomb@dfo-mpo.gc.ca>  
**Sent:** Friday, July 19, 2024 2:55 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>; Liutkus, Joanne

<Joanne.Liutkus@dfo-mpo.gc.ca>

**Cc:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>; Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>

**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Raquel,

On Tab 1, there is no change required at present for my comment on page 5, but my comments at pages 4 and 6 could be addressed. Can you or Joanne propose some edits there and resend?

Thanks,  
Reagan

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>

**Sent:** Friday, July 19, 2024 2:32 PM

**To:** Newcomb, Reagan <Reagan.Newcomb@dfo-mpo.gc.ca>; Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>

**Cc:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>; Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>

**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Reagan,

Tracked changes and final versions are attached.

Thank you [REDACTED]  
Raquel

---

**From:** Newcomb, Reagan <Reagan.Newcomb@dfo-mpo.gc.ca>

**Sent:** Friday, July 19, 2024 2:18 PM

**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>; Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>

**Cc:** salmonITC / CITsaumon (DFO/MPO) <DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca>; Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca>

**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Raquel or Joanne,

I have reviewed and made some updates in the memo and Tab 1. For your review and update. If you can send tracked change and clean versions back for my final review by 3:30 p.m., I will review and approve these before I finish today [REDACTED] If past 3:30 p.m., I would instead suggest routing directly to Brenda.

Thanks,

Reagan Newcomb

s.19(1)

A/Director, Operations, Aquaculture Management, Fisheries Management Branch, Pacific Region  
Fisheries and Oceans Canada, Government of Canada  
[reagan.newcomb@dfo-mpo.gc.ca](mailto:reagan.newcomb@dfo-mpo.gc.ca) | 778-268-2854

Directeur/l, Opérations, Gestion de l'aquaculture, Direction de la gestion des pêches, Région pacifique  
Pêches et Océans Canada, Gouvernement du Canada  
[reagan.newcomb@mpo-dfo.gc.ca](mailto:reagan.newcomb@mpo-dfo.gc.ca) | 778-268-2854

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 1:38 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Note also that the dates in the memo have been corrected. I missed removing Joanne's comment.

Attached is the clean copy if needed

~ Raquel

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO)  
**Sent:** Friday, July 19, 2024 1:24 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>  
**Subject:** For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024  
**Importance:** High

Hello Paula,

I'm not sure who to send this to with changeovers, so am cc'ing Reagan directly- please forward to have this set up for approval today, if possible.

The transfer of 280,000 Atlantic salmon smolts. This is an urgent request for a transfer **due to a harmful plankton bloom causing increased mortality at site.**

The documents have been reviewed by Joanne and have been updated.

Thank you,  
Raquel



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Aquaculture Management  
Division

Division de la gestion de  
l'aquaculture

Director

Directeur

UNCLASSIFIED

GCCMS#: 2024-502-00178

EKME #: 4379189

MEMORANDUM FOR THE REGIONAL DIRECTOR, FISHERIES MANAGEMENT

**S713 – MOWI Canada West Inc. Transfer Request  
(FOR DECISION)**

**Summary**

The purpose of this note is to request your decision on a transfer request from MOWI Canada West Inc. for a marine to marine transfer of finfish. Details of the application are as follows:

**S713 – MOWI Canada West Inc.**

- 280,000 Atlantic salmon (*Salmo salar*) smolts
- Source: Bell Island (Facility 892)
- Destination: Duncan Island (Facility 1293), Doyle Island (Facility 1288), Shelter Pass (Facility 1350), Ghi ya (Facility 7053)

The receiving environment is in Port Hardy in Aquaculture Management Zone (AMZ) PH-01 and PH-03.

The Introductions and Transfers Committee has reviewed the application and recommends proceeding with issuance of the licence.

The applicant has requested a transfer date of July 22, 2024.

**Background**

Prior to issuing a licence to transfer live fish, the Minister must be satisfied that each of the three preconditions outlined in *Fishery (General) Regulations* S.56 are met:

- a) the release or transfer of the fish would be in keeping with the proper management and control of fisheries;
- b) **the fish do not have any disease or disease agent that may be harmful to the protection and conservation of fish; and,**
- c) the release or transfer of the fish will not have an adverse effect on the stock size of fish or the genetic characteristics of fish or fish stocks.

## Analysis and Considerations

The members of the Introductions and Transfers Committee reviewed this transfer request to ensure that each of the three preconditions (a, b, and c) under *S.56 of the Fishery (General) Regulations* are met. As part of the review, a site visit and document review was conducted. The full analysis can be reviewed in the attached Transfer Assessment document (Tab 1). *The Disease Agent Assessment (DAA) for *Tenacibaculum maritimum* (the causative agent of mouth rot), is also attached for reference (Tab 2).*

All documents were reviewed by DFO Aquaculture Biologists and DFO veterinarians. Mortalities at the site have been elevated due to an ongoing environmental event caused by *Chaetoceros* species of harmful plankton, with mouth rot acting as a contributing factor. *Management actions to mitigate mouth rot have been limited,* as harmful plankton prevented the latest round of in-feed antibiotic treatment. Mortalities related to harmful plankton remain elevated due to the ongoing environmental event. This will likely be resolved by transferring fish to another site, which is the primary purpose of this transfer. Furthermore, improved environmental conditions would allow MOWI Canada West to resume in-feed treatment and appropriate management of mouth rot. Significant laboratory testing has been done by the company to assess for pathogens of concern, with the exception of mouth rot, and all lab results have been negative.

*Tenacibaculum maritimum* is a bacterium that is ubiquitous in the marine environment. It is common for Atlantic salmon that are transferred to the marine environment from freshwater to demonstrate clinical signs (yellow bacterial plaques in and around the mouth) of mouth rot. Antibiotic treatment is effective at managing this disease. *Evidence of clinical signs diminishes with treatment and resolves within six (6) months of entry.*

In summary, this request to transfer live fish from a marine to the marine environment meets each of the three preconditions. No additional mitigating conditions of licence are recommended by the Introductions and Transfers Committee. The Introductions and Transfers Committee recommends that this request be approved.

**Advice, Recommendations, and Next Steps**

A decision is sought to approve this application to transfer 280,000 Atlantic salmon smolt from MOWI Canada West Inc., Bell Island (Facility 892) to Duncan Island (Facility 1293), Doyle Island (Facility 1288), Shelter Pass (Facility 1350), Ghi ya (Facility 7053). The licence will be valid for 90 days starting the date of approval.

A decision is requested at the earliest convenience due to a harmful plankton bloom causing increased mortality.

---

Reagan Newcomb  
A/Director Operations  
Aquaculture Management Division

I concur with the recommendations

I do not concur with the recommendations

**Davis, Neil** Digitally signed by Davis, Neil  
Date: 2024.07.22 18:05:46  
-07'00'

---

Neil Davis  
Regional Director  
Fisheries Management

Attachments: (2)



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

### Correspondence Routing Slip

UNCLASSIFIED

GCCMS #: 2024-502-00178

EKME #: 4379189

To: Neil Davis

Date:

Title: S713 – MOWI Canada West Inc.

From: Reagan Newcombe, A/Director Operation, Aquaculture Management  
Division

Additional approvals:

Intended Last Office (ILO):

Regional Director, FM

Purpose of Correspondence:

Decision

Information

Signature

This briefing note was developed in consultation with the following **regions/sectors**:

Distribution:

Drafting Officer :

Deja Coupe (236) 255-3461 / Joanne Liutkus

**From:** Manchester, Howie  
**Sent:** Tuesday, July 23, 2024 11:37 AM  
**To:** [Redacted]  
**Cc:** Sandberg, Krista; Diamond, Maria; Verkaik, Katie; Rutherford, Emily (DFO/MPO)  
**Subject:** Mortality by Category - Q3 2023 - Discrepancy

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi [Redacted]

During a review of the 2023 Q3 Mortality by Cause report it was noted that most of the mortalities for the Month of August 2023 were categorized under the 'Fresh Silver' and the 'Handling/Transport' categories (see below)

Facility Reference No.	Facility Name	Location No.	Fish Health Zone	Calendar Month	Cultured Species	Other Species - Specify	Fish Production Category	Environmental	Fresh Silver	Handling / Transport	Maturation	Off Development /	Fish Performance /	Production /	Mortality Total
892	Galatas Channel, I.E. Bell Island	1404818	3-A	JUL	Atlantic Salmon		Production-500g	11035	5755	788	52	4349	5079		21068
892	Galatas Channel, I.E. Bell Island	1404818	3-A	AUG	Atlantic Salmon		Production-500g	4487	18337	11351	1	3348	8119		29046
892	Galatas Channel, I.E. Bell Island	1404818	3-A	SEP	Atlantic Salmon		Production-500g								24209

During this month (August 2023) MOWI had reported a 24 hour Mortality Event for August 2, 2023, during this event 20 338 carcasses were reported and the Primary Probable Cause or Diagnosis was recorded as 'Algae Bloom'

Incident Date	Occurrence Category	Associated Fish Healths Event? (Y/N)	Cultured Species	Reporting Sequence	Reporting Date	Fish Affected	Daily Inventory	Daily No. of Fish Dead	Proportion Dead	Average Weight (grams)	Daily Carcass Biomass (kg)	Resolved? (Y/N)	Primary Probable Cause or Diagnosis	Action Taken	Information Release
2023-08-02	New - 24 hour	N	Atlantic Salmon	Incident Day	2023-08-02	All pens, no indicate pen numbers	852309	20338	2.4%	398	8095	N	Algae Bloom	Environmental Mitigation	The Bell Island site was in the process of treatment for a mouth-rot infecti stopped as the water quality degrad Pseudo Nitzschia, coccidiodinium pat inoachromulina plankton caused m We are currently monitoring the bio remove mortalities at the site

A Subsequent 10 day follow up Mortality Event follow up report was submitted indicating that the Mortality Event continued and the Primary Cause was 'Algae Bloom', at this point the number of fish dead reported was 190 925.

Three more follow up reports were submitted before the Mortality Event resolved, in these reports the Primary Cause changed to 'Other – explain' and indicated that the mortality cause was a combination of harmful plankton and mouth rot, totaling another 193 894 before resolving.

Would you be able to explain why in the 2023Q3 Mortality by Cause report for the month of August there is no mortality attributed to 'Environmental' even though it appears from the Mortality Event reports submitted to DFO, which primarily occurred in the month of August 2023, is caused by an Algae bloom. Please also note that a DFO audit that occurred at the Bell Island site on August 15<sup>th</sup> indicated from on site records that mortality was due primarily to harmful plankton with some mouth rot and 'other non-infectious' as secondary and tertiary causes, therefore I'm assuming the error is in the Mortality by Cause report. If there was an error please correct and re submit the report in which the error occurred.

Please let me know if you have any questions or need further clarification.

Thanks  
 Howie  
 Howie Manchester BSc  
 Senior Aquatic Science Biologist  
 Fisheries and Oceans Canada / Peches et Oceans Canada  
 Aquaculture Management Division / Gestion de l'aquaculture  
 Aquaculture Environmental Operations - Fish Health  
 #103 2435 Mansfield Drive  
 Courtenay, B.C  
 Cell: 250 331 1927  
 Fax: 250 703 0921

s.19(1)

Utility Reference No	Facility Name	Landfile No	Fish Health Zone	Calendar Month	Cultured Species	Other Species - Specify	Fish Production Category	Environmental	Fresh 'Silver'	Handling / Transport	Maturation	Old (Decomposed)	Poor Performer / Cull	Predator Attack	Mortality Total
Pick Facility Here	Do Not Enter	Do Not Enter	Do Not Enter	Pick List	Fill only if entered data in blue	Specify the species if selected "Other" in Pick List	Pick List	format: 0-9999999	format: 0-	format: 0-	format: 0-	format: 0-9999999	format: 0-	format: 0-	Do Not Enter
892	Goletas Channel, S.E. Bell Island	1404918	3-4	JUL	Atlantic Salmon		Production <500g	11025	9765	784	58	4348	5079		31059
892	Goletas Channel, S.E. Bell Island	1404918	3-4	AUG	Atlantic Salmon		Production >500g		183887	131847	1	38686	36139		390560
892	Goletas Channel, S.E. Bell Island	1404918	3-4	SEP	Atlantic Salmon		Production >500g	4487	20273	2173	1	3748	4027		34709

Incident Date	Occurrence Category	Associated Fish Health Event? (Y/N)	Cultured Species	Reporting Sequence	Reporting Date	Pens Affected	Daily Inventory	Daily No. of Fish Dead	Proportion Dead	Average Weight (grams)	Daily Carcass Biomass (kg)	Resolved? (Y/N)	Primary Probable Cause or Diagnosis	Action Taken	Information Relevant to Event
input format: YYYY-MM-DD	Pick List	Pick List	Pick List	Do Not Enter	Do Not Enter	"All pens" or indicate pen numbers	input format: 9999999	input format: 999999	Do Not Enter	input format: 9999	Do Not Enter	Pick List	Pick List	Pick List	
2023-08-02	New - 24 hour	N	Atlantic Salmon	Incident Day	2023-08-02	all	852209	20538	2.4%	398	8095	N	Algae Bloom	Environmental Mitigation	The Bell Island site was in the process of administering a treatment for a mouth-myxo infection. The treatment was stopped as the water quality degraded. A combination of Pseudo Nitzschia, cochlodinium polykrikoides and rhizochromulina plankton caused mortality in all of the pens. We are currently monitoring the bloom and taking action to remove mortalities at the site.

**From:** McCorquodale, Brenda  
**Sent:** Tuesday, July 23, 2024 12:49 PM  
**To:** Delaney, Paula (DFO/MPO)  
**Subject:** RE: RDFM APPROVED w/comments // RE: 2024-502-00178 S713 - MOWI (Bell Island to various sites)

I just looked and there were comments from Reagan in the assessment document – even when they returned them.

Brenda  
Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865  
Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** Delaney, Paula (DFO/MPO) <Paula.Delaney@dfo-mpo.gc.ca>  
**Sent:** Tuesday, July 23, 2024 9:28 AM  
**To:** McCorquodale, Brenda <Brenda.McCorquodale@dfo-mpo.gc.ca>  
**Subject:** RE: RDFM APPROVED w/comments // RE: 2024-502-00178 S713 - MOWI (Bell Island to various sites)

Hi Brenda,

Thanks for reminding us to double check all documents going forward to ensure there are not comments in the memos and all is letter perfect for the RDFM and onward, we do our best to check all documents going up for accuracy.

My understanding, and I have checked the documents, and Sharon Tai the GCCMS coordinator, in the RDFM office, has confirmed that there were no comments on the memos sent to the RDFM for this ITC, and what the RDFM was saying for the ITC to incorporate any additional information (ie: your question and Derek Price's response to you in the email) into the memo rather than in the email to him in the future. "Approved w a comment on the note. In the future, please ensure smes do not leave any key comments outside the note in an email – they need to be incorporated into the note so the note captures all the key considerations"

I was relaying this comment from the RDFM for the AP group for writing of future ITCs. If I am not clear please let me know.

Thank you, Paula

---

**From:** McCorquodale, Brenda <Brenda.McCorquodale@dfo-mpo.gc.ca>  
**Sent:** Tuesday, July 23, 2024 8:50 AM

**To:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Cc:** Khan, Danieh (DFO/MPO) <[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; Pringle, Sarah (DFO/MPO) <[Sarah.Pringle@dfo-mpo.gc.ca](mailto:Sarah.Pringle@dfo-mpo.gc.ca)>  
**Subject:** RE: RDFM APPROVED w/comments // RE: 2024-502-00178 S713 - MOWI (Bell Island to various sites)

That note is for our office – please double-check before items are sent up for approval that any comment boxes have been removed/ resolved. It should be the final polished version sent to RDGO.

Brenda  
Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865  
Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 23, 2024 8:39 AM  
**To:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>  
**Subject:** RDFM APPROVED w/comments // RE: 2024-502-00178 S713 - MOWI (Bell Island to various sites)

Hi Brenda,

Please note the RDFM has approved this ITC 2024-502-00178 S713 MOWI (Bell Island to various sites) with comments below.

**Please note RDFM'S comment:** Approved w a comment on the note. In the future, please ensure smes do not leave any key comments outside the note in an email – they need to be incorporated into the note so the note captures all the key considerations

Thank you, Paula

---

**From:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 23, 2024 8:27 AM  
**To:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** FW: RDFM APPROVED // RE: 2024-502-00178 S713 - MOWI (Bell Island to various sites)

Hi everyone,

Please see attached for RDFM approval/signature of **U-2024-502-00178 - S709 - MOWI (Ghi Ya to Wanx Talis)**

**Please note RDFM'S comment:** Approved w a comment on the note. In the future, please ensure smes do not leave any key comments outside the note in an email – they need to be incorporated into the note so the note captures all the key considerations

**ITC group:** please note to ensure the memo has been processed in GCCMS and entered into EKME prior to any signing so it is correct on file. Thank you!

All related documents have been entered in the aqua drive and can be found here:

Z:\Approved Correspondences - RHQ\Approved ITC Applications\2024 ITC Applications\2024-502-00178 - S713

Kind regards,

**Danieh Khan**

Administrative Assistant, Fisheries Management - Pacific  
Fisheries and Oceans Canada | Government of Canada  
[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)

---

**From:** PAC FM Exec Correspondence / Correspondance Exéc GP PAC (DFO/MPO)  
<[DFO.PACFMExecCorrespondence-CorrespondanceExecGPPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACFMExecCorrespondence-CorrespondanceExecGPPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, July 23, 2024 8:04 AM  
**To:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Cc:** PAC FM Exec Correspondence / Correspondance Exéc GP PAC (DFO/MPO)  
<[DFO.PACFMExecCorrespondence-CorrespondanceExecGPPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACFMExecCorrespondence-CorrespondanceExecGPPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RDFM APPROVED // RE: 2024-502-00178 S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 - RDFM urgent approval due today

Hi AMD,

Please see attached RDFM approval of 2024-502-00178: "S713 - **MOWI (Bell Island to various sites)**".

Note comment below from RDFM:

Approved w a comment on the note. In the future, please ensure smes do not leave any key comments outside the note in an email – they need to be incorporated into the note so the note captures all the key considerations

**Attachments:**

1. 2024-502-00178 – Memo – signed by the RDFM

2. 2024-502-00178 – Tab 1
3. 2024-502-00178 – Tab 2

Thank you,

**Sharon Tai** (she/her)

Correspondence Coordinator, Fisheries Management  
Fisheries and Oceans Canada | Government of Canada  
[Sharon.Tai@dfo-mpo.gc.ca](mailto:Sharon.Tai@dfo-mpo.gc.ca)

---

**From:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 1:23 PM  
**To:** PAC FM Exec Correspondence / Correspondance Exéc GP PAC (DFO/MPO)  
<[DFO.PACFMExecCorrespondence-CorrespondanceExecGPPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACFMExecCorrespondence-CorrespondanceExecGPPAC.MPO@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO)  
<[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** 2024-502-00178 S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 - RDFM urgent approval due today

Hi Sharon,

Please see attached for RDFM approval of 2024-502-00178: "S713 - MOWI (Bell Island to various sites)"

**Brenda has approved, but please note Brenda's question to FH:** "Can AEO provide clarity related to the Tenacibaculum and the medication which has been administered as well as the six month 'active period' for the pathogen. Logically it would seem that the risk of moving the disease around would be lower if we could wait until the fish were not actively shedding it? What are their thoughts on this. I realize that it is somewhat of a moot point if the science advice says that it does not cause disease in wild fish populations. How does this get weighted against the risk of the fish getting more sick with other things due to the stress of the algal bloom. Are our SMEs comfortable and confident this is the right approach?"

**Derek Price's response to Brenda:** "There are two main causes for the ongoing nature of Tenacibaculum infections at the farm level here in BC, multiple entries and re-infection. As you may know, *Tenacibaculum maritimum* (Tmar) and other species are widely distributed in the marine environment so fish are usually exposed as soon as they are stocked in marine farms. Fish are normally treated for Tmar shortly after stocking and usually respond well to treatment. However, not all the fish are stocked at the same time, so multiple groups of fish are exposed at different times and must be subsequently treated. Additionally, after the treatments end and fish are recovered, they may still be susceptible to new infections with the bacteria and may require additional treatments. Regarding the option of waiting until fish stop shedding the bacteria, fish develop some resistance to Tmar with subsequent exposure, but it takes some time. We think that leaving the fish untreated is unlikely to lead to the resolution of the infection in the short run. With this level of Chaetoceros, however, it is difficult to assess the contribution of mouthrot to mortality or the level of shedding and would be even harder to anticipate the trend. We think that it is in everyone's best interest to move these fish

to a more suitable environment to allow treatment to be delivered to these fish and limit the impact of this bacteria in this population's health and the environment. As Brenda correctly identifies, our estimation of risk to wild salmon arising from this transfer is informed by the conclusions outlined in the CSAS document, so if the conclusions of that study were different, we would have a harder time recommending this transfer."

Attachments:

1. 2024-502-00178 – Memo (word version for edits)
2. 2024-502-00178 – PDF for signing
3. 2024-502-00178 – Tab 1
4. 2024-502-00178 – Tab 2
5. 2024-502-00178 – RROUTE SLIP

Seeking RDFM approval **ASAP** today as this is an urgent request for a transfer due to a harmful plankton bloom causing increased mortality at site.

Kind regards,

**Danieh Khan**

Administrative Assistant, Fisheries Management - Pacific  
Fisheries and Oceans Canada | Government of Canada  
[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)

---

**From:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>

**Sent:** Monday, July 22, 2024 1:06 PM

**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>

**Cc:** Khan, Danieh (DFO/MPO) <[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>

**Subject:** RE: Response to Brenda from Derek Price - For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Thanks – pls attached this note when it goes up to Neil D. I approve.

Brenda  
Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865

Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>

**Sent:** Monday, July 22, 2024 12:42 PM

**To:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>

**Cc:** Khan, Danieh (DFO/MPO) <[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>

**Subject:** Response to Brenda from Derek Price - For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

**Importance:** High

Hi Brenda,

Please find the response to your questions below from Derek Price.

Hi Deja,

There are two main causes for the ongoing nature of *Tenacibaculum* infections at the farm level here in BC, multiple entries and re-infection. As you may know, *Tenacibaculum maritimum* (Tmar) and other species are widely distributed in the marine environment so fish are usually exposed as soon as they are stocked in marine farms. Fish are normally treated for Tmar shortly after stocking and usually respond well to treatment. However, not all the fish are stocked at the same time, so multiple groups of fish are exposed at different times and must be subsequently treated. Additionally, after the treatments end and fish are recovered, they may still be susceptible to new infections with the bacteria and may require additional treatments.

Regarding the option of waiting until fish stop shedding the bacteria, fish develop some resistance to Tmar with subsequent exposure, but it takes some time. We think that leaving the fish untreated is unlikely to lead to the resolution of the infection in the short run. With this level of *Chaetoceros*, however, it is difficult to assess the contribution of mouthrot to mortality or the level of shedding and would be even harder to anticipate the trend.

We think that it is in everyone's best interest to move these fish to a more suitable environment to allow treatment to be delivered to these fish and limit the impact of this bacteria in this population's health and the environment. As Brenda correctly identifies, our estimation of risk to wild salmon arising from this transfer is informed by the conclusions outlined in the CSAS document, so if the conclusions of that study were different, we would have a harder time recommending this transfer.

Regards,

Derek Price, MV, PhD

Seeking your email approval by today July 22<sup>nd</sup>.

Thank you, Paula

---

**From:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 12:38 PM  
**To:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>; Price, Derek <[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178  
**Importance:** High

Hello Paula,

Please find FH reply below.

Cheers,  
Deja

---

**From:** Price, Derek <[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 12:37 PM  
**To:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>; Rutherford, Emily (DFO/MPO) <[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)>  
**Cc:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Deja,

There are two main causes for the ongoing nature of *Tenacibaculum* infections at the farm level here in BC, multiple entries and re-infection. As you may know, *Tenacibaculum maritimum* (Tmar) and other species are widely distributed in the marine environment so fish are usually exposed as soon as they are stocked in marine farms. Fish are normally treated for Tmar shortly after stocking and usually respond well to treatment. However, not all the fish are stocked at the same time, so multiple groups of fish are exposed at different times and must be subsequently treated. Additionally, after the treatments end and fish are recovered, they may still be susceptible to new infections with the bacteria and may require additional treatments.

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We think that it is in everyone's best interest to move these fish to a more suitable environment to

allow treatment to be delivered to these fish and limit the impact of this bacteria in this population's health and the environment. As Brenda correctly identifies, our estimation of risk to wild salmon arising from this transfer is informed by the conclusions outlined in the CSAS document, so if the conclusions of that study were different, we would have a harder time recommending this transfer.

Regards,

Derek Price, MV, PhD

Epidemiologist, Aquaculture Fish Health  
Aquaculture Management Division / Fisheries and Oceans Canada  
[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)  
Tel: 250-703-0929 Cell: 250-850-9362



Canada

---

**From:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:38 AM  
**To:** Rutherford, Emily (DFO/MPO) <[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)>; Price, Derek <[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)>  
**Cc:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178  
**Importance:** High

Hello FH team,

Can you please address Brenda's questions below for the urgent MOWI application.

Thank you,  
Deja

Deja Coupe (she/her)  
Governance Officer | Agent de gouvernance  
Aquaculture Policy | Politique de l'aquaculture  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Tel. | Tél. (236) 255-3461  
[deja.coupe@dfo-mpo.gc.ca](mailto:deja.coupe@dfo-mpo.gc.ca)

*I respectfully acknowledge that I live, work and play on the traditional, unceded territories of the K'ómoks First Nation.*



Canada

**From:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:35 AM  
**To:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Cc:** Khan, Danieh (DFO/MPO) <[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Deja,  
Please note Brenda's email below with questions ...  
Thank you, Paula

---

**From:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:29 AM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Can AEO provide clarity related to the Tenacibaculum and the medication which has been administered as well as the six month 'active period' for the pathogen. Logically it would seem that the risk of moving the disease around would be lower if we could wait until the fish were not actively shedding it? What are their thoughts on this. I realize that it is somewhat of a moot point if the science advice says that it does not cause disease in wild fish populations. How does this get weighted against the risk of the fish getting more sick with other things due to the stress of the algal bloom. Are our SMEs comfortable and confident this is the right approach?  
Brenda  
Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865  
Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** Delaney, Paula (DFO/MPO)  
**Sent:** Friday, July 19, 2024 4:30 PM  
**To:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>  
**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Brenda,

Seeking your urgent approval for the above ITC. Reagan has approved. If we think this could happen today, I'll stay on and email MOWI if the approval comes in.

Please note the rationale from AP: "Thanks everyone for working quickly on this. This year we had a series of urgent approval for transfers due to environmental impacts. Something we'll have to think about for the future as things continue to warm up." ~ Raquel

Reagan has approved and signed as above.

For your email approval as soon as possible. Transfer is anticipated for Monday July 22<sup>nd</sup>.

Thank you, Paula

---

**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:58 PM  
**To:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks Joanne – approved package attached. It looks as though my signature is required on the memo so I've attached a PDF with my e-signature on it as well.

Paula, please route up to Brenda for onward approval by RDFM.

Thanks,  
Reagan

---

**From:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:49 PM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks, Reagan. I would just remove the sentence "Ghi-ya has completed four full production cycles in that time". It seems like a piece of context is missing previous to this that had been removed.

I've attached the updated.

Joanne

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**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:45 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks Raquel.

Not to be difficult on that last comment, but the sentence simply reads strangely with “in that time” at the end, and not frame of reference anywhere in the section, let alone the entire document, to tell the reader what timeframe we are talking about:

“The Ghi-ya aquaculture facility is located near Hope Island in the northern extent of Port Hardy, in AMZ PH-03. Although there are more facilities near Port Hardy, the closest operational facility to Ghi-ya is another Mowi site, Wanx Talis. Ghi-ya has completed four full production cycles in that time.”

If you know what the timeframe is in which the ‘four full production cycles’ have been completed, we can just replace “in that time” with that. Do you know what this timeframe is?

Reagan

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**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:34 PM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Reagan,

Thank you for your fresh eyes on this.

These templates have been used for several years and we will review and update prior to the next salmon application flurry, in mid-August.

For now, due to the urgency, I’ve removed the statement about ABAM and left in the previous comment. We appreciate your comments and edits and will incorporate into future memos.

Thank you,  
Raquel

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**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 2:55 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Raquel,

On Tab 1, there is no change required at present for my comment on page 5, but my comments at pages 4 and 6 could be addressed. Can you or Joanne propose some edits there and resend?

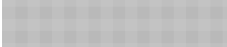
Thanks,  
Reagan

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**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 2:32 PM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Reagan,

Tracked changes and final versions are attached.

Thank you and   
Raquel

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**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 2:18 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Raquel or Joanne,

I have reviewed and made some updates in the memo and Tab 1. For your review and update. If you can send tracked change and clean versions back for my final review by 3:30 p.m., I will review and approve these before I finish today [REDACTED]. If past 3:30 p.m., I would instead suggest routing directly to Brenda.

Thanks,

Reagan Newcomb

A/Director, Operations, Aquaculture Management, Fisheries Management Branch, Pacific Region  
Fisheries and Oceans Canada, Government of Canada  
[reagan.newcomb@dfo-mpo.gc.ca](mailto:reagan.newcomb@dfo-mpo.gc.ca) | 778-268-2854

Directeur/l, Opérations, Gestion de l'aquaculture, Direction de la gestion des pêches, Région pacifique  
Pêches et Océans Canada, Gouvernement du Canada  
[reagan.newcomb@mpo-dfo.gc.ca](mailto:reagan.newcomb@mpo-dfo.gc.ca) | 778-268-2854

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 1:38 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Note also that the dates in the memo have been corrected. I missed removing Joanne's comment.

Attached is the clean copy if needed

~ Raquel

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO)  
**Sent:** Friday, July 19, 2024 1:24 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>  
**Subject:** For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024  
**Importance:** High

Hello Paula,

I'm not sure who to send this to with changeovers, so am cc'ing Reagan directly- please forward to have this set up for approval today, if possible.

The transfer of 280,000 Atlantic salmon smolts. This is an urgent request for a transfer due to a harmful plankton bloom causing increased mortality at site.

The documents have been reviewed by Joanne and have been updated.

Thank you,  
Raquel

**No information has been severed or removed from this page**

Marine Finfish Coordination Meeting Notes – July 30, 2024

A link to these notes was sent from Alyssa Bougie to Emily Rutherford on July 30, 2024

Incident Date	Report Date	Facility	Details
July 13	July 14	Sheep Pass	New 5 day ME Infectious Disease (mouthrot) 3.3%, 610g avg 18,631 pcs, 11,364kg biomass
July 16	July 17	Concepcion	New 24hr ME Handling, 2.5%, 937 pcs, 3.6kg avg, 3,430 kg biomass. Diver clean-out site is harvesting no uplifts in pen (last dive day July 9th.) is this a true ME?
July 24	July 26	McIntyre Lake	New 5d ME - Other explain (enviros?) 2.5%, 741g avg, 14,510 pcs, 10,713 kg biomass
July 25	July 29	Bell Island	Poor Gill Health // contributing factors – mouthrot, algae

**Fish Health Events**

Incident Date	Report Date	Facility	Details
July 13	July 20	Westside	MR treatment
July 14	July 20	Rant Point	MR treatment
July 23	July 25	Doyle	MR treatment
July 22	July 26	Doyle	FW treatment for gill health due to chronic exposure to harmful plankton

**Sea Lice Mitigations**

Incident Date	Report Date	Facility	Details
July 19	July 22	Marsh Bay	SLICE
July 20	July 22	Goat Cove	Hydrolicer
July 27	July 29	Alexander	Mechanical

**Sea Lice Events**

Incident Date	Report Date	Facility	Details
July 16	July 17	Concepcion	Post-treat 0.50 avg (1 pen only - moved from Williamson)
July 16	July 17	Marsh Bay	Post-bath + pre-treat (SLICE) 0.51 avg
July 16	July 17	Shelter Pass	Post-mech 1.17 avg
July 26	July 29	Goat Cove	Post and pre-treat count avg 5.14

1. Operational updates (e.g. day-to-day, routine)
  - a. Inbox report review (Data Team)
  - b. *Sea lice updates – paused for now, weekly updates go directly to BI-03. Resume during next pre-migration window.*
  - c. Field Updates (AEO, AFH)
    - i. AEO
      - i. GE facilities last week w/ C&P, FH
        1. New array being installed, follow up visit mid-September
      - ii. End of August – 27<sup>th</sup> to 30<sup>th</sup> - Port Hardy visit, benthic audits, facility inspections potentially w/ FH
      - iii. Early Sept – Central coast visit for benthic audit and joint C&P inspections
    - ii. AFH
      - i. Opportunistic visits depending on capacity
      - ii. GE trip follow up likely in September
      - iii. Nootka area last week
      - iv. Hatchery visits preparing for transfers
2. Compliance updates
  - a. AFH, AEO, Data Team: N/A
  - b. ICRC/C&P: N/A
3. Licensing and permitting
  - a. Applications and amendments (ARM)
    - i. Update on current applications
      - i. **Much N and S going up for decision today-ish, Williamson follow soon**
      - ii. Ross Pass application ongoing
      - iii. Hohoae revised application
  - b. ITC (AP; e.g. how many MFF ITC permits applied for and issued, etc)
    - i. Two Cermaq applications for transfers from hatcheries to sites, one from Creative
    - ii. Discussion about advance transfer notice – tracker produced historically for info, can keep current if needed.
4. Program Updates
  - a. AP (incl. Data Team)
    - i. ITC: Salmon module changes approved, some outstanding questions on the ARM.
      - i. Next step: let's set up a meeting about scope of information needed to be assessed on the ARM side.  
**- Raquel to set up**

- ii. Data Team:
  - i. AQUIS build 9 went into production last week
    - 1. Mainly updates on data management side, updates to templates/new COLs.
    - 2. Bid for new contractor up. Funding available until end of fiscal year for small updates.
- b. AEO:
  - i. Blair [REDACTED] for next three weeks; Aug 7 – Nathan back in Bi-03 role; Aug 15 – new staff starting; Howie and then Krista to cover A/Manager, AEO & FH
  - ii. Q on DI remediation work – callout for participants? Yes – plans are still in the works, depends on final workplan. Likely mid Sept-mid Oct.
- c. AFH:
  - i. Staffing – people on leave next two-three weeks, Howie covering A/Manager role for two weeks [REDACTED] August - low capacity. Potential new Bi-02 starting in September.
  - ii. MOU w/ Animal Health Center still in the works.
- d. ASD:
  - i. Expect draft Transition Plan to be released very soon, couple weeks delay possible
    - i. Focus likely to be more on closed containment rather than tracking metrics
    - ii. Seeking clarity around species impacted by TP, clarity on enhancement (working with SEP, FFSBC)
    - iii. Working on defining roles between NHQ & Pacific Region to avoid duplication of effort
    - iv. Working on feed reporting – potential voluntary info request
    - v. Effluent management in marine and land-based closed containment
- e. C&P: N/A
- f. ARM
  - i. Consultation and Engagement:
    - i. Post-decision communication on MFF licensing sent to FN, stakeholders
      - 1. No feedback so far
    - ii. ARM & Transition Plan engagement efforts being amalgamated, pending on release of T; trying to find a consistent way of tracking engagement & reducing duplication of efforts
    - iii. FAIAP – seeking direction on purpose of this forum moving forward

- 1.
- ii. Other program updates
  - i. Litigation
  - ii. Errors in MFF licences – likely going to need to reissue them

5. Roundtable: N/A

**Action:** Raquel to set up meeting with ARM re: ITC transfer questions

**From:** Sandberg, Krista  
**Sent:** Tuesday, July 30, 2024 11:35 AM  
**To:** Rutherford, Emily (DFO/MPO)  
**Subject:** FW: Bell Island Fish Health Event Notification -NEW  
**Attachments:** 25-Jul-2024 - Bell Island Fish Health Event Notification - NEW.xlsx

Provided in xcel format

Hi Emily,

The fish at Bell Island have all been moved to Doyle. The Mortality Event report states that the mortalities were due to poor gill health, with contributing factors of Mouthrot and plankton. If you think this needs to be revised, please let me know and we can edit the AQUIS record.

Thanks,  
Krista.

**Krista Sandberg**

Senior Data and Public Reporting Coordinator |  
Coordonnateur principal des rapports publics et de données  
Aquaculture Management Division | Gestion de l'aquaculture  
Cellular | Cellulaire 250-895-1723



Government  
of Canada

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du Canada

Canada

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**From:** [REDACTED]  
**Sent:** Monday, July 29, 2024 5:43 PM  
**To:** PAC Aqua Fish Health / Aqua Sante des poisson PAC (DFO/MPO) <DFO.PACAquaFishHealth-AquaSantedespoissonPAC.MPO@dfo-mpo.gc.ca>  
**Cc:** [REDACTED]  
**Subject:** Bell Island Fish Health Event Notification -NEW

Good afternoon,

Please see the attached Fish Health Event Notification for Bell Island. From July 25-26 all pens were transferred to Doyle Island due to the ongoing mortality event secondary to harmful plankton. Fish treated with freshwater on transport with the Aqua Tromoy to help treat poor gill health.

Let me know if there are any questions.

Kind regards,

[REDACTED]  
Mowi Canada West

s.19(1)

Mobile: [REDACTED]

Email: [REDACTED]

**From:** Rutherford, Emily (DFO/MPO)  
**Sent:** Wednesday, July 31, 2024 8:00 PM  
**To:** Blasco, Nathan  
**Subject:** Fwd: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Here is another example of **Derek's talent for explaining things**, as we discussed in our last bilateral meeting.

Have a great long weekend.

Cheers,  
Emily

[Get Outlook for iOS](#)

---

**From:** Price, Derek <Derek.Price@dfo-mpo.gc.ca>  
**Sent:** Monday, July 22, 2024 12:37 PM  
**To:** Coupe, Deja <Deja.Coupe@dfo-mpo.gc.ca>; Rutherford, Emily (DFO/MPO) <Emily.Rutherford@dfo-mpo.gc.ca>  
**Cc:** Liutkus, Joanne <Joanne.Liutkus@dfo-mpo.gc.ca>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <Raquel.Roizman@dfo-mpo.gc.ca>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Deja,

There are two main causes for the ongoing nature of *Tenacibaculum* infections at the farm level here in BC, multiple entries and re-infection. As you may know, *Tenacibaculum maritimum* (Tmar) and other species are widely distributed in the marine environment so fish are usually exposed as soon as they are stocked in marine farms. Fish are normally treated for Tmar shortly after stocking and usually respond well to treatment. However, not all the fish are stocked at the same time, so multiple groups of fish are exposed at different times and must be subsequently treated. Additionally, after the treatments end and fish are recovered, they may still be susceptible to new infections with the bacteria and may require additional treatments.

Regarding the option of waiting until fish stop shedding the bacteria, fish develop some resistance to Tmar with subsequent exposure, but it takes some time. We think that leaving the fish untreated is unlikely to lead to the resolution of the infection in the short run. With this level of *Chaetoceros*, however, it is difficult to assess the contribution of mouthrot to mortality or the level of shedding and would be even harder to anticipate the trend.

We think that it is in everyone's best interest to move these fish to a more suitable environment to allow treatment to be delivered to these fish and limit the impact of this bacteria in this population's health and the environment. As Brenda correctly identifies, our estimation of risk to wild salmon arising from this transfer is informed by the conclusions outlined in the CSAS document, so if the conclusions of that study were different, we would have a harder time recommending this transfer.

Regards,

Derek Price, MV, PhD

Epidemiologist, Aquaculture Fish Health  
Aquaculture Management Division / Fisheries and Oceans Canada  
[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)  
Tel: 250-703-0929 Cell: 250-850-9362



Canada

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**From:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:38 AM  
**To:** Rutherford, Emily (DFO/MPO) <[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)>; Price, Derek <[Derek.Price@dfo-mpo.gc.ca](mailto:Derek.Price@dfo-mpo.gc.ca)>  
**Cc:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178  
**Importance:** High

Hello FH team,

Can you please address Brenda's questions below for the urgent MOWI application.

Thank you,  
Deja

Deja Coupe (she/her)  
Governance Officer | Agent de gouvernance  
Aquaculture Policy | Politique de l'aquaculture  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Tel. | Tél. (236) 255-3461  
[deja.coupe@dfo-mpo.gc.ca](mailto:deja.coupe@dfo-mpo.gc.ca)

*I respectfully acknowledge that I live, work and play on the traditional, unceded territories of the K'ómoks First Nation.*



Canada

---

**From:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Sent:** Monday, July 22, 2024 11:35 AM  
**To:** Coupe, Deja <[Deja.Coupe@dfo-mpo.gc.ca](mailto:Deja.Coupe@dfo-mpo.gc.ca)>  
**Cc:** Khan, Danieh (DFO/MPO) <[Danieh.Khan@dfo-mpo.gc.ca](mailto:Danieh.Khan@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence /

Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>

**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Deja,

Please note Brenda's email below with questions ...

Thank you, Paula

---

**From:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>

**Sent:** Monday, July 22, 2024 11:29 AM

**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>

**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>

**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Can AEO provide clarity related to the Tenacibaculum and the medication which has been administered as well as the six month 'active period' for the pathogen.

Logically it would seem that the risk of moving the disease around would be lower if we could wait until the fish were not actively shedding it?

What are their thoughts on this. I realize that it is somewhat of a moot point if the science advice says that it does not cause disease in wild fish populations. How does this get weighted against the risk of the fish getting more sick with other things due to the stress of the algal bloom. Are our SMEs comfortable and confident this is the right approach?

Brenda

Brenda McCorquodale (she/ her/ elle)

---

A/Senior Director /Directrice principale  
Aquaculture Management / Gestion de l'aquaculture  
Fisheries Management Branch / Direction de la gestion des pêches  
Fisheries and Oceans Canada / Pêches et Océans Canada  
1965 Island Diesel Way | Nanaimo, BC | Nanaimo, CB | V9S 5W8  
250-902-8865  
Email | Courriel: [Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)

---

**From:** Delaney, Paula (DFO/MPO)

**Sent:** Friday, July 19, 2024 4:30 PM

**To:** McCorquodale, Brenda <[Brenda.McCorquodale@dfo-mpo.gc.ca](mailto:Brenda.McCorquodale@dfo-mpo.gc.ca)>

**Cc:** PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>

**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024 2024-502-00178

Hi Brenda,

Seeking your urgent approval for the above ITC. Reagan has approved. If we think this could happen

today, I'll stay on and email MOWI if the approval comes in.

Please note the rationale from AP: "Thanks everyone for working quickly on this. This year we had a series of urgent approval for transfers due to environmental impacts. Something we'll have to think about for the future as things continue to warm up." ~ Raquel

Reagan has approved and signed as above.

For your email approval as soon as possible. Transfer is anticipated for Monday July 22<sup>nd</sup>.

Thank you, Paula

---

**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:58 PM  
**To:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks Joanne – approved package attached. It looks as though my signature is required on the memo so I've attached a PDF with my e-signature on it as well.

Paula, please route up to Brenda for onward approval by RDFM.

Thanks,  
Reagan

---

**From:** Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:49 PM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks, Reagan. I would just remove the sentence "Ghi-ya has completed four full production cycles in that time". It seems like a piece of context is missing previous to this that had been removed.

I've attached the updated.

Joanne

**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:45 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Thanks Raquel.

Not to be difficult on that last comment, but the sentence simply reads strangely with “in that time” at the end, and not frame of reference anywhere in the section, let alone the entire document, to tell the reader what timeframe we are talking about:

“The Ghi-ya aquaculture facility is located near Hope Island in the northern extent of Port Hardy, in AMZ PH-03. Although there are more facilities near Port Hardy, the closest operational facility to Ghi-ya is another Mowi site, Wanx Talis. Ghi-ya has completed four full production cycles in that time.”

If you know what the timeframe is in which the ‘four full production cycles’ have been completed, we can just replace “in that time” with that. Do you know what this timeframe is?

Reagan

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**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 3:34 PM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Reagan,

Thank you for your fresh eyes on this.

These templates have been used for several years and we will review and update prior to the next salmon application flurry, in mid-August.

For now, due to the urgency, I’ve removed the statement about ABAM and left in the previous comment. We appreciate your comments and edits and will incorporate into future memos.

Thank you,  
Raquel

**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 2:55 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Raquel,

On Tab 1, there is no change required at present for my comment on page 5, but my comments at pages 4 and 6 could be addressed. Can you or Joanne propose some edits there and resend?

Thanks,  
Reagan

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 2:32 PM  
**To:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** FW: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Reagan,

Tracked changes and final versions are attached.

Thank you & [REDACTED]  
Raquel

---

**From:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 2:18 PM  
**To:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>  
**Cc:** salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>; Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>; PAC AMD Exec Correspondence / Correspondance exec DGA PAC (DFO/MPO) <[DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca](mailto:DFO.PACAMDExecCorrespondence-CorrespondanceexecDGAPAC.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Hi Raquel or Joanne,

I have reviewed and made some updates in the memo and Tab 1. For your review and update. If you can send tracked change and clean versions back for my final review by 3:30 p.m., I will review and approve these before I finish today and [REDACTED] If past 3:30 p.m., I would instead suggest routing directly to Brenda.

Thanks,

Reagan Newcomb

A/Director, Operations, Aquaculture Management, Fisheries Management Branch, Pacific Region  
Fisheries and Oceans Canada, Government of Canada  
[reagan.newcomb@dfo-mpo.gc.ca](mailto:reagan.newcomb@dfo-mpo.gc.ca) | 778-268-2854

Directeur/l, Opérations, Gestion de l'aquaculture, Direction de la gestion des pêches, Région pacifique  
Pêches et Océans Canada, Gouvernement du Canada  
[reagan.newcomb@dfo-mpo.gc.ca](mailto:reagan.newcomb@dfo-mpo.gc.ca) | 778-268-2854

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**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO) <[Raquel.Roizman@dfo-mpo.gc.ca](mailto:Raquel.Roizman@dfo-mpo.gc.ca)>  
**Sent:** Friday, July 19, 2024 1:38 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>  
**Subject:** RE: For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024

Note also that the dates in the memo have been corrected. I missed removing Joanne's comment.

Attached is the clean copy if needed

~ Raquel

---

**From:** Roizman, Raquel (she, her / elle, la) (DFO/MPO)  
**Sent:** Friday, July 19, 2024 1:24 PM  
**To:** Delaney, Paula (DFO/MPO) <[Paula.Delaney@dfo-mpo.gc.ca](mailto:Paula.Delaney@dfo-mpo.gc.ca)>  
**Cc:** Newcomb, Reagan <[Reagan.Newcomb@dfo-mpo.gc.ca](mailto:Reagan.Newcomb@dfo-mpo.gc.ca)>; Liutkus, Joanne <[Joanne.Liutkus@dfo-mpo.gc.ca](mailto:Joanne.Liutkus@dfo-mpo.gc.ca)>; salmonITC / CITsaumon (DFO/MPO) <[DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca](mailto:DFO.salmonITC-CITsaumon.MPO@dfo-mpo.gc.ca)>  
**Subject:** For urgent approval: S713 - MOWI (Bell Island to various sites)- Transfer anticipated Monday July 22, 2024  
**Importance:** High

Hello Paula,

I'm not sure who to send this to with changeovers, so am cc'ing Reagan directly- please forward to have this set up for approval today, if possible.

The transfer of 280,000 Atlantic salmon smolts. This is an urgent request for a transfer due to a harmful plankton bloom causing increased mortality at site.

The documents have been reviewed by Joanne and have been updated.

Thank you,  
Raquel

**No information has been severed or removed from this page**

**From:** Sandberg, Krista  
**Sent:** Friday, August 2, 2024 11:43 AM  
**To:** Rutherford, Emily (DFO/MPO)  
**Subject:** RE: Bell Island Fish Health Event Notification -NEW

Thanks for the deep dive on this one! I think it's really a chicken/egg situation. For mortality event public reporting we have a 'primary probable cause' and 'contributing factors'. So the question is if the primary cause is the algae which contributed to poor gill health or if the primary cause is poor gill health caused by algae. I think we could argue either way. And in reading your scenarios, I think it might even change over time? Maybe at the start of the event the mortality was from the algae directly, then as time goes on the gills become more compromised and maybe the algae isn't around as much but mortalities still continue due to the damaged gills? Either way, I think we should stick to the root cause, which to me seems to be the algae. If it weren't for the algae then the gills probably wouldn't have been an issue.

Krista.

### Krista Sandberg

Senior Data and Public Reporting Coordinator |  
Coordonnateur principal des rapports publics et de données  
Aquaculture Management Division | Gestion de l'aquaculture  
Cellular | Cellulaire 250-895-1723



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**From:** Rutherford, Emily (DFO/MPO) <Emily.Rutherford@dfo-mpo.gc.ca>  
**Sent:** Wednesday, July 31, 2024 8:20 AM  
**To:** Sandberg, Krista <Krista.Sandberg@dfo-mpo.gc.ca>  
**Subject:** RE: Bell Island Fish Health Event Notification -NEW

Good morning, Krista,

I was looking at the Bell Island ME classification thing. This is normally something I would run by Howie, but he isn't available. I haven't done much of this so far, but from what I can see the current classification would fit well with this definition from the Fish Health Audit Case Definitions and Descriptions.doc:

*Elevated mortality due to compromised gills as a result of environmental factors (eg. jellyfish, sediment, larvae, harmful algal blooms) Environmental irritants, such as jellyfish, crab larvae, and harmful plankton species cause direct mechanical damage to gill tissue. Damaged gills can lead to direct mortality which are reported as "Elevated mortality due to environmental factors...". In surviving fish, gills can become necrotic and degenerate, or a proliferative immune response can occur. Either process leaves gills susceptible to secondary bacterial or parasitic infection and compromises respiration. Compromised gill health leads to a further decrease in ability to withstand suboptimal environmental conditions, leading to increased mortality levels within the population. Affected fish will have visibly damaged gills, which can be confirmed using histology and corroborated with historic evidence of the causative environmental factor in the water column. These circumstance are reported as "Elevated mortality due to compromised gills as a result of environmental factors.."*

I think my desire to confer with Howie is to discuss this historically so we can be consistent in our evaluation. While the above definition makes me think that poor gill health is a good primary cause for this ME, I can also see how it would be confusing to the public. We also have a very close definition that leads my down the opposite path, namely:

*Elevated mortality due to environmental factors (low DO, harmful algal blooms, jellyfish, sediment) This farm-level diagnosis is assigned by DFO veterinarians based on field observations, specific mortality rate, individual fish pathology reports, on-farm health records and pathogen identification tests. The results of these assessments reveal no uniform infectious cause of disease in the observed population. However, environmental data indicate an environmental factor (e.g., low dissolved oxygen event, presence of harmful algal bloom and/or jellyfish) that can explain the increased mortality. Secondary effects of environmental stressors, such as damaged gills, may still be present, but are not deemed to be the primary cause.*

Given these definitions, if the primary cause of mortality is poor gill health secondary algae, I am inclined to keep the Bell Island classification as it is. In my communication on this event with Madison and with the evidence we have gathered on site, the category fits. We may, however, want to add a note (if possible) to the Poor gill health diagnosis to qualify that the poor gill health is as a result of environmental factors for clarity and public reporting. Their mortality by cause data shows high deaths due to their "Env-Algal blooms" classification, but the algae is chaetoceros the type that causes mechanical damage to gills, leading to poor gill health. In addition, our recent audit histology results show 10/10 fish with "moderate to severe gill disease, with large numbers of Chaetoceros sp. between gill filaments. The gill lesions were often associated with secondary bacterial infection and tissue necrosis."

If there is another definitions document that I should be referring to instead, please feel free to let me know. **I am still trying to gather existing definitions and sort out where to use which one.** Given these findings and in the absence of Howie's sage historical advice for how we have dealt with these in the past, my inclination is to keep the classification the same but add a comment regarding underlying cause of poor gill health if possible. I am also happy to take a second look at this with Howie upon his return.

Let me know what questions you may have.

Emily

**Dr. Emily Rutherford, DVM (she/her)**

Field Operations Veterinarian - Pacific Region  
Fisheries and Oceans Canada | Pêches et Océans Canada

Cellular – (250) 299-6794

[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)

---

**From:** Sandberg, Krista <[Krista.Sandberg@dfo-mpo.gc.ca](mailto:Krista.Sandberg@dfo-mpo.gc.ca)>

**Sent:** Tuesday, July 30, 2024 8:35 AM

**To:** Rutherford, Emily (DFO/MPO) <[Emily.Rutherford@dfo-mpo.gc.ca](mailto:Emily.Rutherford@dfo-mpo.gc.ca)>

**Subject:** FW: Bell Island Fish Health Event Notification -NEW

Hi Emily,

The fish at Bell Island have all been moved to Doyle. The Mortality Event report states that the

mortalities were due to poor gill health, with contributing factors of Mouthrot and plankton. If you think this needs to be revised, please let me know and we can edit the AQUIS record.

Thanks,  
Krista.

**Krista Sandberg**

Senior Data and Public Reporting Coordinator |  
Coordonnateur principal des rapports publics et de données  
Aquaculture Management Division | Gestion de l'aquaculture  
Cellular | Cellulaire 250-895-1723



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du Canada

Canada

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**From:** [REDACTED]

**Sent:** Monday, July 29, 2024 5:43 PM

**To:** PAC Aqua Fish Health / Aqua Sante des poisson PAC (DFO/MPO) <[DFO.PACAquaFishHealth-AquaSantedespoissonPAC.MPO@df-mpo.gc.ca](mailto:DFO.PACAquaFishHealth-AquaSantedespoissonPAC.MPO@df-mpo.gc.ca)>

**Cc:** [REDACTED]

<

**Subject:** Bell Island Fish Health Event Notification -NEW

Good afternoon,

Please see the attached Fish Health Event Notification for Bell Island. From July 25-26 all pens were transferred to Doyle Island due to the ongoing mortality event secondary to harmful plankton. Fish treated with freshwater on transport with the Aqua Tromoy to help treat poor gill health.

Let me know if there are any questions.

Kind regards,

[REDACTED]  
MOWI Canada West

Mobile: [REDACTED]

Email: [REDACTED]

s.19(1)