

ALASKA LEGISLATURE

2716

HOUSE and SENATE FINANCE COMMITTEE FILES, 2003-2004

ANALYSIS: (continued)

The bill creates two new fees and increases an existing fee charged by the department:

Section 1: This section creates a \$200.00 fee for amusement devices inspected by the department. This fee is intended to cover costs associated with inspector certification and travel. Estimated receipts are \$10.0 annually.

Section 2: This section creates a \$200.00 certification fee for boiler operator licenses. This fee is intended to cover existing administrative costs associated with issuing the licenses. Positions have currently been held vacant due to lack of revenue. Estimated receipts are \$76.4 annually.

Section 3: This section increases the fees for electrical and plumbing certificates of fitness from \$160.00 to \$200.00. This increase is expected to generate sufficient revenues to add an Electrical Inspector position and associated costs to enforce certificate of fitness requirements and perform inspections. Estimated receipts are \$132.0 annually.

**SENATE COMMITTEE REPORT
First Committee of Referral**

DATE: 1/23/04

FURTHER: Finance

Date of 5-Day Notice: 2/5/04
(in accordance with Uniform Rule 23)

DATE TURNED
IN TO OFFICE: 2/19/04

Labor and Commerce Committee considered SENATE BILL NO. 278

SB 278 LABOR & WORKFORCE DEVELOPMENT FEES

"An Act relating to fees for the inspection of recreational devices, for certificates of fitness for electrical wiring and plumbing, for filing voluntary flexible work hour plans, and for licenses for boiler operators; and providing for an effective date."

and recommends:

- be replaced with _____ CS SB 278 (LEC)
- adopt previous _____ CS _____ (_____)
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:	
<input type="checkbox"/>	Same Title
<input checked="" type="checkbox"/>	New Title
House Bill:	
<input type="checkbox"/>	Same Title
<input type="checkbox"/>	Technical Title Change
<input type="checkbox"/>	New Title w/ SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#
LWF	2/5	✓			1
LWF	2/5	✓			#2

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
French <i>[Signature]</i>			X	
Seekins <i>[Signature]</i>	✓			
Seekins <i>[Signature]</i>	X			
CHAIR: <i>[Signature]</i>	✓			

French
Seekins
Seekins

Bunde

SENATE FINANCE COMMITTEE

SIGN-IN

SB 278-LABOR & WORKFORCE DEVELOPMENT FEES

NAME: GREG O'CLARAY, comm DOLWD
GREY MITCHELL DIRECTION Subject/Bill No: SB278
Co./Dept./Title: DOLWD Phone: 465-2700
Address: _____ Zip: _____

Do you wish to testify? Yes No Respond To Questions

NAME: _____ Subject/Bill No: _____
Co./Dept./Title: _____ Phone: _____
Address: _____ Zip: _____

Do you wish to testify? Yes No Respond To Questions

NAME: _____ Subject/Bill No: _____
Co./Dept./Title: _____ Phone: _____
Address: _____ Zip: _____

Do you wish to testify? Yes No Respond To Questions

NAME: _____ Subject/Bill No: _____
Co./Dept./Title: _____ Phone: _____
Address: _____ Zip: _____

Do you wish to testify? Yes No Respond To Questions

SB

279

HFIN

FILE

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: 3
 Bill Version: CSSB 279(FIN)
 (S) Publish Date: 3/22/04

Revision Date/Time (Note if correction): _____ Dept. Affected: Revenue
 Title AHFC Water and Sewer Bonds RDU Alaska Housing Finance Corp.
 Component Operations
 Sponsor Rules Committee
 Requester Governor Component No. 110

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
CHANGE IN REVENUES ()	0.0	(6,000.0)	(6,000.0)	(6,000.0)	(6,000.0)	(6,000.0)

FUND SOURCE (Thousands of Dollars)

FUND SOURCE	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2004) cost: 0.0
 Mark this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

POSITIONS	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Full-time						
Part-time						
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*
 Under AS 18.56.089(2)(a), activities of the corporation that relate to the issuance of obligations and the repayment of debt obligations are exempt from the provisions of the Executive Budget Act. These costs are included in the bond authorizations of the bill. Bonds issued under this legislation will be paid from the annual dividend to the state general fund under 18.56.089(c). This bond issuance will result in a reduction in the annual dividend. The term of the bonds is expected to be ten years.

 Estimates for debt service and other costs are based on a number of assumptions, including future interest rates and bond ratings. Operational costs for issuing and monitoring these bonds will be done with existing personnel and within the authorized operating budget for FY2005 and beyond. No budget authorizations are necessary with this fiscal note.

Prepared by: Bryan Butcher, Legislative Liaison/Special Assistant Phone 330-8445
 Division Alaska Housing Finance Corporations Date/Time 3/9/04 8:21 AM
 Approved by: Tom Boutin, Deputy Commissioner Date 3/9/2004
 Agency Department of Revenue

THE
FOLLOWING
DOCUMENT(S)
ARE
POOR
ORIGINAL
COPIES

Withdrawn

5-9-04

#1
craft

Amendment CSSB 279

Page 3, line 23, Add new section.

(C) minus the amount, up to a maximum of \$5,000,000, by which the appraised value of Block 102 in the Municipality of Anchorage, as improved by the construction of a parking facility for primary use by the visitors and occupants of the Atwood Building, exceeds the unimproved value of Block 80, such valuation to occur only in the event that the Municipality enters into an Agreement for the development of a municipal convention facility on Block 80 and for the associated development of a parking garage on Block 102.

\$1.5 million to
Harborview Developmental Center

N
11

Yes
1111

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: 3
 Bill Version: CSSB 279(FIN)
 (S) Publish Date: 3/22/04

Revision Date/Time (Note if correction): _____ Dept. Affected: Revenue
 Title AHFC Water and Sewer Bonds RDU Alaska Housing Finance Corp.
 Component Operations
 Sponsor Rules Committee
 Requester Governor Component No. 110

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
-----------------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()	0.0	(6,000.0)	(6,000.0)	(6,000.0)	(6,000.0)	(6,000.0)
-------------------------------	------------	------------------	------------------	------------------	------------------	------------------

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2004) cost: 0.0
 Mark this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Under AS 18.56.089(2)(a), activities of the corporation that relate to the issuance of obligations and the repayment of debt obligations are exempt from the provisions of the Executive Budget Act. These costs are included in the bond authorizations of the bill. Bonds issued under this legislation will be paid from the annual dividend to the state general fund under 18.56.089(c). This bond issuance will result in a reduction in the annual dividend. The term of the bonds is expected to be ten years.

Estimates for debt service and other costs are based on a number of assumptions, including future interest rates and bond ratings. Operational costs for issuing and monitoring these bonds will be done with existing personnel and within the authorized operating budget for FY2005 and beyond. No budget authorizations are necessary with this fiscal note.

Prepared by: Bryan Butcher, Legislative Liaison/Special Assistant Phone 330-8445
 Division Alaska Housing Finance Corporations Date/Time 3/9/04 8:21 AM
 Approved by: Tom Boutin, Deputy Commissioner Date 3/9/2004
 Agency Department of Revenue



Headquarters:
4300 Brnlfce Parkway
Anchorage, AK 99504
907-338-6100

Mailing Address:
PO Box 101020
Anchorage, AK 99510

Internet Web Site:
<http://www.ahfc.state.ak.us>

Senate Bill 279 – AHFC Water and Sewer Bonds

Senate Bill 279 will provide \$45 million for village safe and clean water and hygienic sewage disposal facilities projects and other capital projects. The village safe water projects that will be funded with bond proceeds have historically been funded through cash from the Corporation's annual dividend to the State.

Estimated debt service on the \$45 million in bonds, based on current interest rates, is approximately \$6 million per year for 10 years. These debt service payments, per Sections 2 and 4 of the bill, would be deducted from AHFC's annual Dividend provided for by AS 18.56.089(c).

Preliminary indications from rating analysts are that there will be no negative impact upon the Corporation's ratings from this proposed issuance. Those indications are given based upon the passage of this bill and Senate Bill 274, which replaces the Housing Assistance Loan Fund (a rural revolving loan fund) with the Housing Assistance Loan Program (a rural loan program). This bill will allow the Corporation to transfer the loans to the General Account and leverage them to help strengthen the Corporation's General Account.



SB

279

SFIN

FILE

SENATE FINANCE COMMITTEE REPORT

DATE: 2/13/04

REPORTED OUT
MAR 22 2004
SENATE FINANCE COMMITTEE
SENATE BILL NO. 279

FURTHER:

DATE TURNED IN TO OFFICE: 3/22/04

Finance Committee considered

SB 279 AHFC WATER & SEWER BONDS

"An Act authorizing and relating to the issuance of bonds by the Alaska Housing Finance Corporation for safe and clean water and hygienic sewage disposal facility capital projects and other capital projects; providing for the repayment of the bonds and bond costs; relating to the dividend paid to the state by the Alaska Housing Finance Corporation; and providing for an effective date."

and recommends:

- be replaced with _____ CS SB 279 (FIN)
- adopt previous _____ CS AS FORTHCOMING _____
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:
 Same Title
 New Title

House Bill:
 Same Title
 Technical Title Change
 New Title w/ SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Zero	Indet.	FN#
DOR	3/9/04		✓		

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
<i>Frank...</i>	✓			
<i>...</i>	✓			
<i>...</i>			✓	
<i>Ben...</i>	✓			
<i>...</i>	✓			
COCHAIR: <i>...</i>	✓			
COCHAIR: <i>...</i>	✓			

MAR 22 2004

SENATE FINANCE
COMMITTEE

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: _____
Bill Version: CSSB279(STA)
() Publish Date: _____

Revision Date/Time (Note if correction): _____ Dept. Affected: Revenue
Title AHFC Water and Sewer Bonds RDU Alaska Housing Finance Corp.
Component Operations
Sponsor Rules Committee
Requester Governor Component No. 110

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
-----------------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()	0.0	(6,000.0)	(6,000.0)	(6,000.0)	(6,000.0)	(6,000.0)
-------------------------------	------------	------------------	------------------	------------------	------------------	------------------

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2004) cost: 0.0
Mark this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

Under AS 18.56.089(2)(a), activities of the corporation that relate to the issuance of obligations and the repayment of debt obligations are exempt from the provisions of the Executive Budget Act. These costs are included in the bond authorizations of the bill. Bonds issued under this legislation will be paid from the annual dividend to the state general fund under 18.56.089(c). This bond issuance will result in a reduction in the annual dividend. The term of the bonds is expected to be ten years.

Estimates for debt service and other costs are based on a number of assumptions, including future interest rates and bond ratings. Operational costs for issuing and monitoring these bonds will be done with existing personnel and within the authorized operating budget for FY2005 and beyond. No budget authorizations are necessary with this fiscal note.

Prepared by: Bryan Butcher, Legislative Liaison/Special Assistant Phone 330-8445
Division Alaska Housing Finance Corporations Date/Time 3/9/04 8:21 AM
Approved by: Tom Boutin, Deputy Commissioner Date 3/9/2004
Agency Department of Revenue

SENATE FINANCE
COMMITTEE

Amendment Number: #1
Bill Number: SB 279
Sponsor: Wilken/Green Date: 3/8/04
Logged In By: Mindy

AMENDMENT

Adopted

OFFERED IN THE SENATE
TO: CSSB 279 (STA)

BY SENATORS WILKEN & GREEN

Page 5, line 9:

Delete: \$5,181,700

Insert: \$25,181,700

1 the corporation during fiscal year 2008, other than an appropriation for the
2 corporation's operating budget.

3 * Sec. 4. The uncodified law of the State of Alaska is amended by adding a new section to
4 read:

5 BOND AUTHORIZATION AND PROVISIONS. (a) Notwithstanding the limitation
6 in AS 18.56.090 or other provisions of law, the Alaska Housing Finance Corporation is
7 authorized to issue bonds in an amount sufficient to finance \$19,818,300 in capital
8 improvements for village safe and clean water and hygienic sewage disposal facilities either
9 directly or as matching money required by grants for those purposes, and ~~\$5,181,700~~ to
10 finance other capital projects. AS 18.56.110 - 18.56.190 apply to bonds issued under this
11 section.

12 (b) The Alaska Housing Finance Corporation shall make the proceeds of bonds issued
13 under (a) of this section available to government departments, agencies, and other government
14 entities identified in appropriations of the bond proceeds as necessary to accommodate the
15 construction schedule for each of the projects for which the bond proceeds are appropriated.
16 All income realized by the Alaska Housing Finance Corporation on the bond proceeds may be
17 used by the corporation solely for payments of the principal of and interest on the bonds or
18 other costs related to the bonds.

19 (c) The Alaska Housing Finance Corporation shall determine the amount of
20 unrestricted revenue necessary, after payments under (b) of this section, for the payment of
21 costs related to the bonds and notify the legislature.

22 (d) The amount determined under (c) of this section necessary for the payment of all
23 costs associated with or related to the bonds, including principal and interest payments, shall
24 reduce the amount of the Alaska Housing Finance Corporation's dividend to the state under
25 AS 18.56.089, as amended by sec. 2 of this Act.

26 * Sec. 5. This Act takes effect immediately under AS 01.10.070(c).

25,181,700

SENATE FINANCE COMMITTEE
3/8 / 2003 COMMITTEE ACTION

Bill Number	SB 279		
Amendment	#1		
Motion	#1 adopt		
<u>Motion by</u>	Green		
<u>Objection by</u>	Wilken		
<u>Removed</u>	✓		
<u>Second Objection by</u>			
<u>Committee Member</u>	Y	<u>Vote</u>	N
Senator Dyson			
Senator Hoffman			
Senator Oison			
Senator Stevens			
Senator Bunde			
Co-Chair Green			
Co-Chair Wilken			
<u>Tally</u>			
Yea			
Nay			
Absent			
<u>MOTION</u>	PASS		

Master

Proof

OK'd by Sheila 12:15pm 3/22/04
23-GS2128UH

CS FOR SENATE BILL NO. 279(FIN)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-THIRD LEGISLATURE - SECOND SESSION

BY THE SENATE FINANCE COMMITTEE

Offered:

Referred:

Sponsor(s): SENATE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

A BILL

FOR AN ACT ENTITLED

1 "An Act authorizing and relating to the issuance of bonds by the Alaska Housing
2 Finance Corporation for safe and clean water and hygienic sewage disposal facility
3 capital projects and other capital projects; providing for the repayment of the bonds
4 and bond costs; relating to the dividend paid to the state by the Alaska Housing Finance
5 Corporation; and providing for an effective date."

6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

7 * Section. 1. The uncodified law of the State of Alaska is amended by adding a new section
8 to read:

9 LEGISLATIVE INTENT. AS 18.56.089(c) provides for the payment of an annual
10 dividend from the Alaska Housing Finance Corporation to the state and appropriation by the
11 legislature of the dividend for capital projects. The legislature intends by this Act to finance
12 village safe and clean water and hygienic sewage disposal facilities under AS 46.07, to
13 provide required matching money for federal grants for the projects, and to finance other

1 capital projects from the proceeds of bonds issued by the Alaska Housing Finance
2 Corporation authorized by this Act. The legislature also intends by this Act that the amount
3 of the dividend from the corporation under AS 18.56.089(c) be reduced by the amount of
4 principal and interest payments on, and costs of, those bonds.

5 * Sec. 2. AS 18.56.089(c) is amended to read:

6 (c) The corporation shall make a dividend available to the state each fiscal
7 year. The corporation shall pay the dividend for a current fiscal year to the state
8 before the end of that fiscal year. The legislature may appropriate the dividend for
9 capital projects. The corporation shall notify the commissioner of revenue of the
10 amount of each dividend under this subsection for inclusion in the state operating
11 budget and shall also notify the commissioner when each dividend is available for
12 payment to the state. The amount of the dividend for a current fiscal year is calculated
13 as follows:

14 (1) the lesser of \$103,000,000 or 75 percent of the net income of the
15 corporation for the base fiscal year;

16 (2) minus the amount of money from the corporation used during that
17 current fiscal year for bond repayment and other costs related to the bonds issued
18 under

19 (A) ch. 26, SLA 1996, up to a maximum of \$1,000,000;

20 (B) sec. 10(b), ch. 130, SLA 2000;

21 (C) sec. 1, ch. 1, SSSLA 2002;

22 (D) sec. 4 of this Act; and

23 (3) minus any appropriation of unrestricted unencumbered money of
24 the corporation during the current fiscal year, other than an appropriation for the
25 corporation's operating budget.

26 * Sec. 3. The uncodified law of the State of Alaska enacted by sec. 2(a), ch. 76, SLA 2003
27 is amended to read:

28 (a) Notwithstanding the amount of the annual dividend under AS 18.56.089(c),
29 [ADDED BY SEC. 1 OF THIS ACT], the dividend is calculated as follows for the following
30 years:

31 (1) fiscal year 2004:

1 (A) \$103,000,000;

2 (B) minus the amount of money from the Alaska Housing Finance
3 Corporation used during fiscal year 2004 for bond repayments and other costs related
4 to the bonds issued under

5 (i) ch. 26, SLA 1996, up to maximum of \$1,000,000;

6 (ii) sec. 2, ch. 129, SLA 1998;

7 (iii) sec. 10(b), ch. 130, SLA 2000;

8 (iv) sec. 1, ch. 1, SSLA 2002;

9 (v) sec. 4 of this Act; and

10 (C) minus any appropriation of unrestricted, unencumbered money of
11 the corporation during fiscal year 2004, other than an appropriation for the
12 corporation's operating budget;

13 (2) fiscal year 2005:

14 (A) \$103,000,000;

15 (B) minus the amount of money from the Alaska Housing Finance
16 Corporation used during fiscal year 2005 for bond repayments and other costs related
17 to the bonds issued under

18 (i) ch. 26, SLA 1996, up to a maximum of \$1,000,000;

19 (ii) sec. 2, ch. 129, SLA 1998;

20 (iii) sec. 10(b), ch. 130, SLA 2000;

21 (iv) sec. 1, ch. 1, SSSLA 2002;

22 (v) sec. 4 of this Act; and

23 (C) minus any appropriation of unrestricted, unencumbered money of
24 the corporation during fiscal year 2005, other than an appropriation for the
25 corporation's operating budget;

26 (3) fiscal year 2006:

27 (A) \$103,000,000;

28 (B) minus the amount of money from the Alaska Housing Finance
29 Corporation used during fiscal year 2006 for bond repayments and other costs related
30 to the bonds issued under

31 (i) ch. 26, SLA 1996, up to a maximum of \$1,000,000;

- 1 (ii) sec. 2, ch. 129, SLA 1998;
2 (iii) sec. 10(b), ch. 130, SLA 2000;
3 (iv) sec. 1, ch. 1, SSSLA 2002;
4 (v) sec. 4 of this Act; and

5 (C) minus any appropriation of unrestricted, unencumbered money of
6 the corporation during fiscal year 2006, other than an appropriation for the
7 corporation's operating budget;

8 (4) fiscal year 2007:

9 (A) the lesser of \$103,000,000 or 95 percent of the net income of the
10 Alaska Housing Finance Corporation for fiscal year 2005;

11 (B) minus the amount of money from the Alaska Housing Finance
12 Corporation used during fiscal year 2007 for bond repayments and other costs related
13 to the bonds issued under

- 14 (i) ch. 26, SLA 1996, up to a maximum of \$1,000,000;
15 (ii) sec. 10(b), ch. 130, SLA 2000;
16 (iii) sec. 1, ch. 1, SSSLA 2002;
17 (iv) sec. 4 of this Act; and

18 (C) minus any appropriation of unrestricted, unencumbered money of
19 the corporation during fiscal year 2007, other than an appropriation for the
20 corporation's operating budget;

21 (5) fiscal year 2008:

22 (A) the lesser of \$103,000,000 or 85 percent of the net income of the
23 Alaska Housing Finance Corporation for fiscal year 2006;

24 (B) minus the amount of money from the Alaska Housing Finance
25 Corporation used during fiscal year 2008 for bond repayments and other costs related
26 to the bonds issued under

- 27 (i) ch. 26, SLA 1996, up to a maximum of \$1,000,000;
28 (ii) sec. 10(b), ch. 130, SLA 2000;
29 (iii) sec. 1, ch. 1, SSSLA 2002;
30 (iv) sec. 4 of this Act; and

31 (C) minus any appropriation of unrestricted, unencumbered money of

1 the corporation during fiscal year 2008, other than an appropriation for the
2 corporation's operating budget.

3 * Sec. 4. The uncodified law of the State of Alaska is amended by adding a new section to
4 read:

5 BOND AUTHORIZATION AND PROVISIONS. (a) Notwithstanding the limitation
6 in AS 18.56.090 or other provisions of law, the Alaska Housing Finance Corporation is
7 authorized to issue bonds in an amount sufficient to finance \$19,818,300 in capital
8 improvements for village safe and clean water and hygienic sewage disposal facilities either
9 directly or as matching money required by grants for those purposes, and \$25,181,700 to
10 finance other capital projects. AS 18.56.110 - 18.56.190 apply to bonds issued under this
11 section.

12 (b) The Alaska Housing Finance Corporation shall make the proceeds of bonds issued
13 under (a) of this section available to government departments, agencies, and other government
14 entities identified in appropriations of the bond proceeds as necessary to accommodate the
15 construction schedule for each of the projects for which the bond proceeds are appropriated.
16 All income realized by the Alaska Housing Finance Corporation on the bond proceeds may be
17 used by the corporation solely for payments of the principal of and interest on the bonds or
18 other costs related to the bonds.

19 (c) The Alaska Housing Finance Corporation shall determine the amount of
20 unrestricted revenue necessary, after payments under (b) of this section, for the payment of
21 costs related to the bonds and notify the legislature.

22 (d) The amount determined under (c) of this section necessary for the payment of all
23 costs associated with or related to the bonds, including principal and interest payments, shall
24 reduce the amount of the Alaska Housing Finance Corporation's dividend to the state under
25 AS 18.56.089, as amended by sec. 2 of this Act.

26 * Sec. 5. This Act takes effect immediately under AS 01.10.070(c).

*Amend
#1*



Official Business

Alaska State Senate

Senate Finance Committee

Mail Stop 3100
State Capitol
Juneau, Alaska 99801-1182

FAX COVER SHEET

DATE: 3/22/04 TIME: 10 AM

TO: Legal

NUMBER OF PAGES, INCLUDING COVER SHEET: 3

FROM: ROBIN PAUL
SENATE FINANCE CMTE. ASST. SECRETARY
PHONE: 465-2618
FAX: 465-2187

NOTES: Need Final Pls!

CS SB 279 (FIN)

X Pls. add Amendment #1 (attached)
to 23-652128/D

Thanks!
Robin



Headquarters:
4300 Boniface Parkway
Anchorage, AK 99504
907-338-6100

Mailing Address:
PO Box 101020
Anchorage, AK 99510

Internet Web Site:
<http://www.ahfc.state.ak.us>

Senate Bill 279

Senate Bill 279 will provide \$25 million for village safe and clean water and hygienic sewage disposal facilities projects and other capital projects. The village safe water projects that will be funded with bond proceeds have historically been funded through cash from the Corporation's annual dividend to the State.

Estimated debt service on the \$25 million in bonds, based on current interest rates, is approximately \$3 million per year for 10 years. These debt service payments, per Sections 2 and 4 of the bill, would be deducted from AHFC's annual Dividend provided for by AS18.56.089(c).

Preliminary indications from rating analysts are that there will be no negative impact upon the Corporation's ratings from this proposed issuance. Those indications are given based upon the passage of this bill and Senate Bill 274, which replaces the Housing Assistance Loan Fund (a rural revolving loan fund) with the Housing Assistance Loan Program (a rural loan program). This bill will allow the Corporation to transfer the loans to the General Account and leverage them to help strengthen the Corporation's General Account.



FY05 CAPITAL PROJECTS

AHFC BONDS

Department of Environmental Conservation

Village Safe Water Feasibility Studies

\$305,800

Village Safe Water Projects

\$19,512,500

Department of Fish and Game

Deferred Maintenance Facilities

\$400,000

DIDSON Sonar Equipment Purchase

\$300,000

Department of Health and Social Services

Pioneers' Homes Deferred Maintenance, Renovation, Repair & Equipment

\$750,000

DHSS Deferred Maintenance, Renovation, Repair & Equipment

\$644,800

Department of Labor and Workforce Development

AVTEC Deferred Maintenance

\$1,500,000

Department of Military and Veterans Affairs

Army Guard Deferred Maintenance, Renewal & Replacement

\$400,000

Department of Natural Resources

Forestry Buildings Repair to Correct Fire & Life Safety Deficiencies

\$311,700

Northern Region (Fairbanks) Office Building Roof Replacement

\$374,000

Department of Transportation and Public Facilities

Facilities Deferred Maintenance & Critical Repairs

\$501,200

AHFC BONDS TOTAL

\$25,000,000

FRANK H. MURKOWSKI
GOVERNOR
GOVERNOR@GOV.STATE.AK.US



STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

58239
P.O. Box 110001
JUNEAU, ALASKA 99811-0001
(907) 465-3500
FAX (907) 465-3532
WWW.GOV.STATE.AK.US

January 22, 2004

The Honorable Gene Therriault
President of the Senate
Alaska State Legislature
State Capitol, Room 107
Juneau, AK 99801-1182

Dear President Therriault:

Under the authority of article III, section 18, of the Alaska Constitution, I am transmitting a bill to provide financing for water and sewer projects. This bill would allow direct financing of projects and provide matching funds required by federal grant programs to build the projects. Funds would come from bonds issued by the Alaska Housing Finance Corporation (AHFC). Repayment of costs of the bonds by AHFC (including principal and interest), would be offset by a reduction in AHFC's dividend to the state.

The technical and financial support delivered by this bill to Alaska communities will allow them to benefit from the improvement in public health, economic development, and quality of life that follows when adequate water and sewer facilities are built.

I urge your prompt and favorable action on this measure.

Sincerely yours,

A handwritten signature in cursive script that reads "Frank H. Murkowski".

Frank H. Murkowski
Governor

Enclosure

SENATE COMMITTEE REPORT

First Committee of Referral

DATE: 1/23/04

FURTHER: Finance

Date of 5-Day Notice: 1/29/04
 (in accordance with Uniform Rule 23)

DATE TURNED
 IN TO OFFICE: 2/13/04

State Affairs considered

SENATE BILL NO. 279

SB 279 AHFC WATER & SEWER BONDS

"An Act authorizing and relating to the issuance of bonds by the Alaska Housing Finance Corporation for safe and clean water and hygienic sewage disposal facility capital projects and other capital projects; providing for the repayment of the bonds and bond costs; relating to the dividend paid to the state by the Alaska Housing Finance Corporation; and providing for an effective date."

and recommends:

- be replaced with _____ CS SB 279 (STA)
- adopt previous _____ CS _____ (_____)
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:	
<input checked="" type="checkbox"/>	Same Title
<input type="checkbox"/>	New Title
House Bill:	
<input type="checkbox"/>	Same Title
<input type="checkbox"/>	Technical Title Change
<input type="checkbox"/>	New Title w/ SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#
DOR	4/9/04	✓			2

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
Cowdery			✓	
Stedman			✓	
G. Stevens	K			

SENATE FINANCE COMMITTEE

SIGN - IN

SB 279-AHFC WATER & SEWER BONDS

NAME: Dan Feyska, Bryan Butcher, Joe Oubler Subject/Bill No: _____
Co./Dept./Title: AHFC Phone: _____
Address: _____ Zip: _____
Do you wish to testify? Yes No Respond To Questions

NAME: _____ Subject/Bill No: _____
Co./Dept./Title: _____ Phone: _____
Address: _____ Zip: _____
Do you wish to testify? Yes No Respond To Questions

NAME: _____ Subject/Bill No: _____
Co./Dept./Title: _____ Phone: _____
Address: _____ Zip: _____
Do you wish to testify? Yes No Respond To Questions

NAME: _____ Subject/Bill No: _____
Co./Dept./Title: _____ Phone: _____
Address: _____ Zip: _____
Do you wish to testify? Yes No Respond To Questions

SB

281

SFIN

FILE

SB 281

was referred to the
Senate Finance
Committee

Hearing(s) were held

The bill did not move
from Committee



SENATOR KIM ELTON

SB 281
Sponsor Statement

"An Act relating to labeling and identification of genetically modified fish and fish products."

Transgenic foods are those in which the genetic structure has been altered at the molecular level by means that are not possible under natural conditions or processes. There has been widespread concern throughout the world over the largely unknown effects of transgenic, or genetically modified (GM) products on human and environmental health.

In an effort to address concerns raised by consumer, environmental, health, and Alaskan fish marketing groups, SB 281 requires Alaskan retailers to identify and label foods containing fish and shellfish, or fish and shellfish products that have been genetically modified.

The message that Alaskan seafood is more natural than seafood that has been engineered or bred is a highly important marketing tool. This bill, by requiring a differentiation between GM and wild seafood helps highlight Alaska seafood as distinct from GM seafood, thereby doing away with any vagueness that may exist to the consumer when purchasing seafood without labeling, and reinforcing the natural message.

Many GM agricultural products are currently allowed on the U.S. market, and an application submitted by an aquaculture company for the use of a GM, growth-enhanced salmon is pending before the Food and Drug Administration's Center For Veterinary Medicine.

Currently, legislation in the European Union, Japan, New Zealand, and Australia requires labeling on foods made from, or containing GM products. SB 281 is similar to legislation introduced in other states, such as Oregon and California, and it comes with the unanimous support of the Joint Legislative Salmon Industry Task Force, a committee comprised of legislators, seafood harvesters and seafood processors.

ALASKA SENATE

STATE CAPITOL • JUNEAU, ALASKA 99801-1182 • (907) 465-4947 • FAX (907) 465-2108

SENATOR_KIM_ELTON@LEGIS.STATE.AK.US



[FDA Home Page](#) | [CVM Home Page](#) | [CVM A-Z Index](#) | [Contact CVM](#) | [Site Map](#)

INFORMATION FOR CONSUMERS
FOOD AND DRUG ADMINISTRATION
CENTER FOR VETERINARY MEDICINE

QUESTIONS AND ANSWERS ABOUT TRANSGENIC FISH

The following consumer information is provided by John Matheson, Office of Surveillance and Compliance, Center for Veterinary Medicine.

Q. Who regulates animal biotechnology products?

A. The FDA Center for Veterinary Medicine (CVM) regulates, in whole or in part, diverse animal biotechnology products.

Q. Has FDA approved transgenic animals to enter the food supply?

A. No. Most transgenic animals under development are regulated by one or more FDA Centers. There are procedures to request approval to enter transgenic animals into the food or feed supply. No approvals have been granted for entry into the human food supply.

The procedures for biopharm animals (producing drugs or biologics) are described in the 1995 Points to Consider in the Manufacture and Testing of Therapeutic Products for Human Use Derived from Transgenic Animals. For these types of animals, as well as others generated by biomedical research, the Center for Veterinary Medicine (CVM) serves as a consulting group to the other FDA Centers in the food and feed safety evaluation.

Gene-based modifications of animals for production or therapeutic claims fall under CVM regulation as new animal drugs. Investigational applications are filed for these modifications where, with a showing of adequate safety data, the sponsor may request disposition of animals by slaughter for food or for processing into animal feed components.

To date, no transgenic animals have been approved for use as human food. A very limited number have been approved for rendering into animal feed components.

Q. How far along is the development of animal biotech products?

A. Non-heritable modifications (gene therapy) are still in early stages of development for animals, although this is a very active area in human medicine. These products are anticipated to be individual animal injections that would modify only some of the cells of the body to express a protein, protein hormone or enzyme. For example, individual steers could be modified to produce more muscle mass without having to modify the breeding herd, where additional muscle mass could cause calving difficulties.

Heritable modifications or germ-line transgenic animals with agronomic traits are most advanced for fish, and have already begun to receive public attention in the U.S. and abroad. Most of the modifications currently relate to improving animal productivity.

Are there any biotech products currently in use?

A. Yes. CVM's first recombinant DNA product - recombinant bovine somatotropin (BST) for dairy cows.

Q. How will these products be regulated?

A. Most, but probably not all, gene-based modifications of animals for production or therapeutic claims fall under CVM regulation as new animal drugs. As strange as it may seem at first, many of the modifications being investigated involve the addition of new animal drug substances. For example, adding growth hormone to a cow can be accomplished through use of BST injections, through gene therapies to create BST-producing regions in the body of the cow, or through germ-line modification, making a transgenic variety that contains extra BST-coding genes in every cell of the body, including reproductive cells. It all amounts to adding an animal drug, but the conditions are different - dose, areas of the body where the drug is released, opportunity for a withdrawal time, etc. The substances being added are for the purpose of improving animal health or productivity.

Q. Are there specific regulations for transgenic animals?

A. The animal drug provisions of the Federal Food, Drug, and Cosmetic Act best fit transgenic animals that have agronomic traits now being investigated and developed. Other transgenics will no doubt come along that could be viewed as containing food additives, color additives, and vaccines. Development of site-specific gene insertion techniques and animal genome projects could change the scope of potential genetic modifications to yield a wider variety of products than are currently being investigated.

Q. Have any transgenic fish been approved in the U.S.?

A. Transgenic fish of various species of salmon, tilapia, channel catfish and others are being actively investigated worldwide as possible new food-producing varieties. Technology developed for using transgenic fish as laboratory models to study developmental biology is being applied to food fish species with the aim of adding agronomically important traits, like improved growth rates and disease resistance.

No transgenic fish have been approved for producing food in the U.S., although a variety of transgenic fish species can be found in laboratories around the world. As there is active investigation of transgenic fish abroad, as well as in the U.S., the public and the research community are occasionally exposed to predictions of the imminent commercial release of transgenic fish into the food supply. This should not occur without the pre-market approval from CVM, for those fish that have an added gene-based animal drug.

Q. What limitations does current technology have on the production of transgenic fish?

A. The current technology has limitations that affect what types of transgenics can be developed. The "transgenes" are limited to short gene constructs and are inserted randomly and in variable numbers of copies in each individual. This creates difficulty in stabilizing genetic modifications in a breeding population. There may be uncontrolled expression of the transgene. It may be expressed all the time; it cannot be turned off. Insertion sites for the transgenes may inadvertently affect the expression of other genes by disabling them or turning them on at an inappropriate time. The incidental insertion of drug resistance genes from bacterial plasmids introduces further uncertainties as to food safety. The technology for creating transgenic animals is constantly improving and will soon begin to reduce the limitations of the current approaches and improve the competitive balance with other approaches to breed improvement.

Q. What about biocontainment concerns?

A. Breeding programs are needed to stabilize the transgenes in a patentable variety and to produce numbers necessary for regulatory approvals and for marketing. Biocontainment strategies, both from an engineering and biological point of view, are necessary to prevent escape of the transgene into wild fish populations and to provide a means of control over the

unlicensed breeding of the patented variety. These features add to the costs of development and affect competitiveness of the approach versus other, more traditional, breeding approaches. Biocontainment needs are specific for each species and the location where it would be reared.

Q. Are there environmental concerns?

A. The primary environmental concerns about releases of transgenic fish, for example, include competition with wild populations, movement of the transgene into the wild gene pool, and ecological disruptions due to changes in prey and other niche requirements in the transgenic variety versus the wild populations. For example, transgenic tilapia (with cold tolerance similar to the unmodified species) might require little containment in the northern tier of the U.S., but might be excluded from the Gulf States altogether, where tilapia may be a serious exotic invader of freshwater streams and ponds. These site-specific concerns may make it necessary to control the sites where transgenic fish are reared and the level of biocontainment required might differ from site to site. Any biocontainment other than absolute containment will have to be assessed for specific proposed sites.

Q. How will the public accept foods derived from transgenic animals?

A. Germ-line transgenic modifications of animals, including fish and shellfish, have already begun to receive public attention in the U.S. and abroad. Public acceptance of foods derived from transgenic animals will be important to the success of any transgenic variety introduction. Approval by FDA or a food regulatory group in another country does not guarantee public acceptance. Labeling of food from transgenic animals will likely be even more important to consumers desiring a choice than has been observed for milk derived from BST-treated dairy cows or for transgenic plant varieties. Ethical concerns among the public over the appropriate use of animals are issues, not evident with transgenic plants, that may affect public acceptance of transgenic animals as food sources. There is also expected to be variation among the citizens of different countries as to their acceptance of transgenic animals. Development of a world market for a transgenic animal variety is currently fraught with difficulties owing to the varying cultural views and governments.

[CVM Home Page](#) | [CVM A-Z Index](#) | [Contact CVM](#) | [Site Map](#)
[FDA Home Page](#) | [Search FDA Site](#) | [FDA A-Z Index](#) | [Contact FDA](#) | [HHS Home Page](#)

FDA/Center for Veterinary Medicine

THE
FOLLOWING
DOCUMENT(S)
ARE
POOR
ORIGINAL
COPIES

Juneau Empire
8-27-02

Report: Genetically modified fish could pose danger

THE ASSOCIATED PRESS

FAIRBANKS - Genetically modified fish from farms eventually could present "considerable" environmental risks, according to a federal science panel.

The National Research Council devoted several pages to fish in a report on biotechnology it released last week. The U.S. Food and Drug Administration requested the report in response to controversy over genetically modified foods.

The research council ranked fish second-highest, behind insects, in a listing of animal types that would raise concern if given new genes.

Farmed fish that escape can disperse rapidly and widely. Once in the wild, the fish could compete against or disrupt natural fish populations, the report said.

"The committee's review of ecologic principles and empirical data suggests a considerable risk of ecologic hazards" if genetically modified fish enter natural ecosystems, the report concluded.

Tom Gemmell, executive director of United Fishermen of Alaska in Juneau, said the report strengthens the case against fish farms, which his organization opposed.

State law bars fish farms in Alaska waters, but dozens of farms raise Atlantic salmon in British Columbia, mostly around Vancouver Island. The B.C. government recently lifted a moratorium on new salmon farms.

No genetically modified fish are being farmed at this point, according to the Canadian Aquaculture Industry Alliance, which opposes the use of such fish.

But the National Research Council report said the industry could turn toward the new stocks later.

"Considerable research effort has been devoted to development of genetically enhanced fish and shellfish stocks, as they pose considerable benefits to producers," the report said.

The review offered with no specific predictions about what might happen if genetically modified fish escaped. Some farmed fish have escaped from B.C. farms, for example.

"It is difficult to assess the likely ecologic or genetic outcome should transgenic Atlantic salmon escape captivity and invade wild populations," the report said.

Studies have shown that, in the salmon family, larger fish have an advantage in spawning. But other studies indicate large genetically modified fish are less likely to produce healthy young.

The two discoveries together present a danger, the panel said. If a modified gene improves spawning success but hurts juvenile viability, "the result is a gradual spiraling down of population size until eventually both wild-type and transgenic genotypes be-

come locally extinct," the report said.

All this is still theory, the panel notes. The information available to date "does not yet provide a body of data useful" for modeling what might happen.

Atlantic salmon, which account for 80 percent of B.C. farmed salmon production, are a different species from the Pacific varieties and aren't likely to interbreed. But they have been caught in Southeast Alaska and as far west as the Bering Sea. Spawning has been documented in some Vancouver Island streams.



Quick Search GO

Search in:

- ▶ SFGate Home
- ▶ Today's Chronicle

- ▶ Sports
- ▶ Entertainment

News & Features

- ▶ Business
- ▶ Opinion
- ▶ Politics
- ▶ Technology
- ▶ Crime
- ▶ Science
- ▶ Weird News
- ▶ Polls
- ▶ Photo Gallery
- ▶ Columnists
- ▶ Travel
- ▶ Lottery
- ▶ Obituaries

Personal Shopper

- ▶ Classifieds
- ▶ Jobs
- ▶ Personals
- ▶ Real Estate
- ▶ Rentals
- ▶ Vehicles
- ▶ WebAds

Regional

- ▶ Traffic
- ▶ Weather
- ▶ Live Views
- ▶ Maps
- ▶ Bay Area Traveler
- ▶ Wine Country
- ▶ Reno & Tahoe
- ▶ Ski & Snow
- ▶ Outdoors
- ▶ Earthquakes
- ▶ Schools

Entertainment

- ▶ Food & Dining
- ▶ Wine
- ▶ Movies
- ▶ Music & Nightlife
- ▶ Events
- ▶ Performance
- ▶ Art
- ▶ Books
- ▶ Comics
- ▶ TV & Radio
- ▶ Search Listings

Living

'Frankenfish' spawn controversy Debate over genetically altered salmon

Monday, April 29, 2002
San Francisco Chronicle
▶ CHRONICLE SECTIONS

Jane Kay, Chronicle Environment Writer



It looks like a North Atlantic salmon. But it grows seven times faster, and it's much more attractive to the opposite sex than a normal salmon.

It's a transgenic fish, the first genetically engineered animal under review for the U.S. food supply. Embedded in every cell of its body are genes from the Chinook salmon and the ocean pout fish that make it grow more quickly.

The altered salmon is likely to become the next focus in the battle over bioengineered food, after controversies over the desirability of genetically altered bovine growth hormones in cows and modified corn, soybeans and canola in cereals and tortilla chips.

In the next year, the U.S. Food and Drug Administration will consider a petition by Aqua Bounty Farms of Waltham, Mass., to farm and market the altered salmon.

Already, the prospect of mutant fish escaping and disrupting already threatened wild populations has prompted lawmakers in several states to take preemptive steps. California could become the first state to ban transgenic fish outright.

Last week, the Senate Natural Resources Committee approved a bill by Sen. Byron Sher, D-Palo Alto, that would make it illegal to import, transport, possess or release transgenic fish. They would be considered an "aquatic nuisance," a category that includes piranhas, slugs and giant toads that threaten wildlife.

Another bill by Assemblywoman Virginia Strom-Martin, D-Duncan Mills, would require labeling of transgenic fish sold in markets. And a joint legislative resolution introduced by Assemblyman Joe Nation, D-San Rafael, urges the FDA to deny

- ▶ Printer-friendly version
- ▶ Email this article to a friend

Chronicle Jobs TOP JOBS

▶ **SALES**
CRUISE SHIP ART AUCTIONEER Park West

▶ **ARCHITECTURE**
ZIMMER GUNSUL FRASCA PARTNERSHIP Nat

▶ **LOAN**
Experienced Underwriters & Underwrit

▶ **RESTAURANT**
Dining Room Mgr /Maitre D' / Sommelie

▶ **ENGINEER**
Transportation Use computer models t

▶ **SALES**
HATE YOUR BOSS? Farmers Ins. Is grow

▶ **LAW**
ENFORCEMENT/ SECURITY GUARDSMARK, LL

▶ **EDUCATION**
In Ridgecrest, CA Instructors Cerro Coso Community

▶ **DENTAL**
TEACHING DENTAL ASST. UOP School of

▶ **NURSING**
Nursing Career Opportunities

chinat

Spon:

Trout far How Aus farmers c

Darrow f Giant jalc one high blackber

- Health
- Home & Garden
- Gay & Lesbian
- Horoscope

Resources

- Search & Archives
- Feedback/Contacts
- Corrections
- Newsletters
- Promotions
- Site Index

Subscriber

Service

- Missed Delivery
- Vacation Hold
- Subscribe
- Contact

Advertising

- Advertise Online
- Place Print Ad
- Media Kit

Aqua Bounty's petition and put in place a moratorium on transgenic fish.

'FRANKENFISH' CONDEMNED

The bills -- and Sher's in particular -- have strong support from consumer, environmental and commercial fishing groups, which dub the altered salmon a "Frankenfish" that would eat or outcompete smaller wild species and cause their extinction. What's more, critics say, federal regulatory oversight of bio-engineered foods is not sufficient to guarantee the fish are safe to eat.

Proponents of biotechnology, on the other hand, view transgenic fish as the answer to supplying consumers with healthful fish without depleting the ocean's declining populations. To fish farmers, it means being able to grow salmon in half the time and at lower feed costs.

Sher's bill could abruptly end these hopes. Biotechnology trade groups, the National Food Processors Association, the state Chamber of Commerce, California Farm Bureau and the California Grocers Association oppose the legislation.

Passing a strict anti-transgenic fish state law would create "a precedent, and could poison the well. Once the door is shut, we may never be able to find the key to open it up again," said George Gough, a Sacramento lobbyist for Monsanto Co.

He urges legislators to leave it up to the FDA, which must consult with federal wildlife and fisheries agencies, to decide whether the bio-engineered salmon is safe.

"This is really the first biotech animal that is going through the review process. The FDA is going to be taking a microscope to this, and it should. When you you say 'fish' or 'beef,' it hits you more than when you say 'soybean, ' " he said.

While Monsanto doesn't work with fish, it's one of the largest producers of transgenic crops, holding dozens of patents on new biotech products, among them soybeans, potatoes, canola and corn. The company believes a California ban would have a chilling effect on the industry and investors.

Opponents of biotechnology say a pre-emptive strike is crucial. About two dozen varieties of genetically engineered fish or shellfish are under development, most aimed at increasing growth and resistance to disease in such species as abalone, oysters, striped bass, rainbow trout, catfish and

Dept. of Corrections

▶ **WAREHOUSE**

DELIVERY -
Driver/Installer - F/T cu

▶ **LEGAL**

Case Management
Analyst Oakland & Sa

▶ **SALES**

INSIDE OUTSIDE
SBC

▶ **RESTAURANT**

Cooks Needed Salad
Bar; Kitchen

▶ **ARCHITECT**

Award-winning firm
seeks designers
Heller Manus

▶ **PHARMACY**

Cardinal Health is the
leading...
Cardinal Health

▶ **MGMT ASST**

Admin, clerical support 4
director
TRPA

▶ **SALES**

Commission Only
Surgical Sales
ONUX Medical

▶ **EDUCATION**

DIRECTOR OF
DEVELOPMENT
U.C. Berkeley

▶ **SOCIAL SERVICES**

Entitlement Specialist
Conard House

▶ **MANAGEMENT**

Store Management
Positions
Home Depot

▶ **SALES**

Sales Associates Cust
Service
Home Depot

▶ **TOOL TECHNICIAN**

tilapia.

THREAT TO NATURAL RESOURCES

"These genetically engineered fish will pose a threat to our natural resources," said Natasha Benjamin, program officer with the Institute for Fisheries Resources, a research arm of the Pacific Coast Federation of Fishermen's Associations.

"California is known to set a precedent when it comes to environmental standards. We hope to see the state take the lead in this issue, and hopefully other states will follow," she said.

At the crux of the debate is whether the superfish would escape into the wild and harm native salmon populations. Damaged by dams, pollution, invasive species and loss of fresh water, salmon are already struggling for sustainability on the Pacific Coast.

A 1999 study by Purdue University scientists predicted ecological risks from the release of transgenic fish into the wild.

The researchers found the larger transgenic fish were more attractive mates for native fish, thus allowing a trait to spread quickly through the wild population. But because the offspring don't live long, eventually the native population would be wiped out.

The study caused widespread concern because in aquaculture, the escape of farmed fish is inevitable.

TRANSGENIC FISH LAWS

Last year, Maryland passed a law prohibiting transgenic fish any place that might connect with waterways. In Oregon, the law prohibits the release of transgenic fish into locations where they can mingle with wild populations. There are discussions in Alaska over an outright ban.

Representatives of Aqua Bounty Farms say its modified Atlantic salmon won't threaten wild stocks. The company will use only sterile females in netted pens, so, if they escape, they won't spawn and pass along the genetic traits.

Joseph McGonigle, vice president of Aqua Bounty, said the technique that his company uses to sterilize eggs "is 100 percent effective. We will be doing . . . screening on every batch of eggs that is done."

Tool Rental Associate
Home Depot

► SALES
Pro Account Sales Associate
Home Depot

► DESIGNER
Project Design Architect
Home Depot

About Top Jobs
View All Top Jobs

But fish scientists, including some from the aquaculture industry, say there is still a chance that a small percentage of fish will be fertile. And they predict another problem: Wild male salmon will try to mate with the larger but sterile female salmon, depressing reproduction rates.

Aquaculture is the fastest growing segment of agriculture, according to the U.S. Department of Agriculture. In California, sales of farmed fish and shellfish have jumped from \$33 million a year in 1991 to \$71 million in 1999 from more than 100 producers.

"The majority of our producers are not involved in transgenics. What we're grappling with is that there may be some transgenic techniques that are proven safe that would be excluded by this bill," said Justin Malan, executive director of the California Aquaculture Association.

The trade group is negotiating with the bill's author to change the language. One of the aquaculture industry's problems is that the bill shuts out all commercial ventures.

"It's a question of whether the importation of transgenic fish should be banned or adequately regulated," Malan said. "We don't have a problem with stipulations that will safeguard the environment or public health, but a ban is forever."

E-mail Jane Kay at jkay@sfgate.com.

Page A - 4



Get 50% off home delivery of the Chronicle for 12 weeks!

[©2004 San Francisco Chronicle](#) | [Feedback](#) | [FAQ](#)

Chronicle Sections

 **Bay Area Breast Cancer Resource Guide**
Take charge of your health

MidwestNaturalFoods.coop

[HOME](#)
[STORES](#)
[GIFT CARD](#)
[NEWSLETTER](#)
[RECIPES](#)
[FOOD TOPICS](#)
[ABOUT CO-OPS](#)
[SEA](#)

Archives: July/August 2003

GMO Salmon: Now Swimming Upstream to a Table Near You

By Hannah Lewis

Americans eat more than 15 pounds of fish each year, compared to about 70 pounds of beef. That trend is expected to shift over the next couple decades with people eating less red meat and as much as 30 percent more fish, predicts the U.S. Department of Agriculture. Fish is rich in healthy Omega-3 fatty acids, and eating it is believed to decrease risk of heart disease, cancer and other ailments.



The USDA expects Americans to eat more fish as part of a growing health trend. Also, a rapidly growing global aquaculture (fish farming) industry is putting much more fish on the market, supplementing the yield from increasingly depleted fisheries. Soon global supply may increase further if farmers from North and South America to Asia begin raising transgenic (genetically modified) fish.

Scientists have discovered a way to make Atlantic salmon grow twice as fast by inserting genes of other fish species into them. Farmers could cut the time in half for getting their product to market and cut fish-feed costs, too, as these salmon convert food to energy more efficiently than their unmodified counterparts. It could mean better profitability for farmers and/or cheaper prices for consumers. Proponents hail the new technology as a way to feed the growing world population.

The U.S. Food and Drug Administration is now reviewing transgenic Atlantic salmon for commercialization. If approved, the fish could become the first transgenic animal product on the market for human consumption.

But public acceptance will depend on whether consumers can live with yet unknown ecological and human health effects of the new technology.



Environmentalists are concerned because fish raised in netted pens in the ocean inevitably escape into the wild. University of Minnesota researcher Kelly Paulson is trying to predict through lab experiments what might happen if a few transgenic fish escaped from a pen and mixed with the native population.

Of three possible outcomes, two are potentially benign. The third would be

[Featured articles](#)
[Recipes](#)
[To the editor](#)
[Ad rates](#)
[Archives](#)

catastrophic Paulson said. "Trojan gene effect" happens when transgenic fish have a mating advantage over wild fish and pass on their genes. The trans-gene then causes unintended, unforeseen genetic problems for subsequent generations, ultimately diminishing the wild population's ability to survive. This is of particular concern as wild Atlantic salmon is already an endangered species.

But Aqua Bounty, the company that developed the fish, says it would breed only sterile females, so if any escaped they wouldn't pass on their genes. Environmentalists warn that remedy may have its own bad effects as males mating with sterile females would result in fewer offspring and decreased population. Furthermore, Paulson doubts 100 percent sterility could be guaranteed or that farms would just spot check for sterility since the cost of screening each individual fish would be costly and labor intensive.

"As scientists...we have some responsibility toward the ecological risk, but as an American, and someone who eats, too, I want to know what I'm eating," said Paulson. Human health concerns are unknown but could include an enhanced genetic ability of transgenic fish to absorb environmental toxins such as mercury, which causes nerve damage in humans.

These considerations are in the hands of the FDA, which is reviewing this product using the same criteria it does to evaluate any new animal drug. Federal regulators made the decision in 1986 that existing laws were adequate to deal with genetically modified animals. But a study released this year by the Pew Initiative on Food and Biotechnology suggests that the FDA is ill-equipped to evaluate these new products, especially on environmental risk assessment.

Another concern about the FDA's evaluation process is that because drug laws require secrecy to protect the applicant from competition, the public is excluded from the debate. The FDA does not even reveal what products are being considered for approval. The public knows about Atlantic salmon only because Aqua Bounty announced it was seeking approval to sell it.

"They could be within days or months or years of commercialization, and [the FDA is] just going to pop this on us one day and expect everyone to understand it?" questioned Paulson.

Judging by scant information in the media about transgenic fish and a lack of knowledge on it even among people in the seafood business, when the product pops onto store shelves, it will be about as poorly understood as any other genetically modified product on the market. And if the FDA doesn't mandate labeling of transgenic salmon, consumers may not even know they're buying it, unless they ask.

Brent Bunn, seafood coordinator at Wedge Co-op, said his customers ask questions about seafood, forcing him to ask his suppliers about what fish were fed and whether they were given hormones, antibiotics or dye. "They expect, if not demand...that we have ingredient lists of what the farmed fish is eating that we're selling them." So Wedge does just that for all types of farmed fish they sell.

Bunn said he would ask suppliers to guarantee their products are not genetically modified organisms (GMOs). "I don't think that they could say, 'Yeah, we don't have GMO salmon' and then we find out that they do. I

mean, that's a lawsuit for them."

Wedge and other natural food co-ops' commitment to organic means those stores are likely to favor GMO-free fish (since GMOs do not meet USDA's National Organic Standards). But even outside the co-ops, most buyers are like Bunn—they respond to customer demands.

"That means badgering your fish monger—what am I eating? And if they can't answer it, don't buy the product because the only true form of protest you have left is your economic protest," Bunn urged.

Consumers opposed to GMOs could also contact their state representatives, urging them to mandate labeling and to reverse a U.S. decision to push the World Trade Organization against the European Union for EU's moratorium on genetically modified foods.

Hannah Lewis is a Twin Cities freelance writer and former co-op produce manager.

[<<Back to the featured article list](#)



www.the-scientist.com

Transgenic Software - <http://www.transgenic-software.com>
 Transgenic Animal Technology Transgenic Animal Management System
 Salmon farming - AustasiaAquaculture.com.au
 How Australian fish farmers grow salmon

Sponsor

Home This Issue About Resources Classifieds



Daily News

August 22, 2002

Previous | Next

GM animals could threaten environment

- Daily News
- Upfront
- Feature
- Research
- Technology
- Profession
- Supplements
- Archives

US NAS report says GM animals pose greater threat to environment than to human health. | By Tabitha M Knowledge

A special committee of the US National Academy of Sciences agrees with long-time critics of biotechnology that transgenic animals could threaten the environment. Genetic manipulation of the food supply, however, is unlikely to pose serious direct hazards to human health, it said yesterday (Wednesday August 21).

In a just-released report that was supposed to focus exclusively on scientific concerns about genetic manipulation and cloning of animals, the committee also touched on several policy issues. It concluded that the nation's current regulatory framework might not be equipped to deal with animal biotechnologies, especially regulations administered by the Food and Drug Administration, which requested the report. It urged labeling of genetically modified (GM) foods, a measure long opposed by industry. And it pleased animal activists by describing possible adverse effects on the health and welfare of transgenic animals.

The committee said the greatest potential adverse impact of GM animals was likely to be their environmental effects, especially because it is hard to identify environmental problems in their early stages and difficult to fix them even after they have come to light. Of chief concern are insects and other animals that are hard to contain and can become feral easily, notably shellfish, fish, mice and rats. The report noted that feral cats, pigs and goats can also do serious ecological damage.

The larger risk is from accidental release of transgenic organisms, although the committee said it had "a high level of concern" about intentional release as well. Escapees might spread a transgene in natural populations or they might be so much fitter that they could outcompete them. Another potential danger is an upset to the balance between predator and prey.

Search

- News from The Scientist
- BioMed Central

Daily News Ex

Top news stories

- Butler to resign professorship
- UK law 'threatens research'
- Swiss enjoy access to cash
- UK pledges cash for science
- Mars the land of Opportunity
- CIHR unveils blueprint 2007
- NIH defends consultant deals
- European Research Council doubts

Elsewhere today

- S. Korea sends deleg to Bangkok for bird flu meeting
- Xinhuanet Jan 27
- WHO issues guideline: control of HIV, TB
- All Africa Jan 27
- More children given M vaccine
- BBC Jan 27
- Primate research lab axed
- BBC Jan 27
- Modified sperm add n fish to gene pool
- Guardian Jan 27
- Little hope left for Be
- Guardian Jan 27

Other ways to receive Daily News

- By email
- On your handheld device



The report said release of transgenic fish and shellfish, especially salmon, needed immediate attention. "Cultivated salmon have escaped into the wild from fish farms and these salmon already pose ecologic and genetic risks to native salmon stocks," the report pointed out. In the lab, transgenic salmon grow four to six times faster than non-transgenic salmon. According to committee member Eric M. Hallerman, a fish and wildlife biologist at the Virginia Polytechnic Institute and State University, Blacksburg, definitive studies of their fitness in the wild and their potential evolutionary consequences have yet to be done.

By contrast, the committee saw little reason to think that GM food animals posed much of a health threat, with a couple of possible exceptions. Newly introduced proteins might trigger allergies or hypersensitivity reactions in some consumers. Another potential hazard is animals engineered to produce medical products in milk or eggs; the report urged strict controls to prevent carcasses of these animals from entering the food supply.

The report also explored safety issues stemming from animals engineered for biomedical purposes, but drew few conclusions. It cited much-discussed but unresolved questions about transmission of disease organisms from transplanted animal organs, especially porcine endogenous retroviruses. It also noted "the theoretical possibility" that pathogenic viruses might result from recombination between a viral vector containing a transgene and normally nonpathogenic viruses in the same animal. Analogous events have been observed in the laboratory, the report pointed out.

"The applications of biotechnology can have adverse effects on the welfare of animals," the committee noted, citing a number of examples. Ruminants produced by cell-culture techniques typically are bigger and have longer gestations than those produced in the usual way, which creates suffering and health problems for both mother and baby. Transgenic technologies have an exceptionally low success rate, and the animals that do result often have physical and behavioral abnormalities. Pigs intended for human transplants are raised in isolated environments that can lead to abnormal behavioral development. The committee's attention to GM animal welfare drew praise from Michael Fox, head of the Humane Society, who said he wished it had happened a decade ago.

Links for this article

National Academy of Sciences
<http://national-academies.org>

Animal Biotechnology: Science-based concerns
<http://national-academies.org>

Food and Drug Administration

• RSS news feed



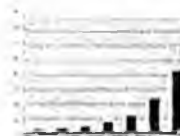
Other pages

News and Comment
 Archive

More from *The Scientist*

ASSAYKIT
 HDAC

upstate
Life Sciences



Histone deacetylase activity in HeLa nuclear extract measured using Upstate's new HDAC Assay. Fluorometric Detection

Learn More About Us

The Campaign

to Label Genetically Engineered Foods

GE foods tutorial

Take Action
Join Us'
News
Legislation
Education
Friends
About Us
Contact Us
Home

Search



Order Take Action Packets

Visit our online store

Sign up for The Campaign's e-mail newsletters

Tell a friend about The Campaign

Threats to the environment

When biotech corporations boast that genetic engineering can do wonders for the environment, we would do well to consider the source. After all, some of these companies are the same ones that have invented such deadly pesticides such as DDT and Agent Orange. These pesticides, it was promised, would help the environment; instead, they turned into environmental disasters.

Environmentalists have many concerns about GE foods. Here are a few:

1. The plight of the Monarch butterfly
Cornell University researchers have found that GE corn may be deadly to the Monarch butterfly. In laboratory tests in the spring of 1999, the scientists found that nearly half of Monarch caterpillars that ate milkweed leaves dusted with GE corn pollen died within four days. The surviving Monarchs that ate the genetically mutated corn pollen were much smaller and had smaller appetites than the control Monarchs, which ate normal corn pollen or no pollen at all.



In 2000, Iowa State University scientists found that plants growing in and near cornfields are being dusted with enough GE pollen to kill monarch caterpillars that feed on them.

Already, GE corn is being grown on 20 million acres of American farmland, right in the heart of Monarch's migratory route between Mexico and Canada.

Tutorial Index

The simple ABC's of genetic engineering

Biotech corporations: Big promise but can they deliver?

Pesticidal potatoes, terminator s and genetically mutated trees, of my!

Meleoric growth: Genetically engineered foods now are almos everywhere you look

Allergic reactions and other pos: 'health risks

Threats to the environment

Organic foods at risk

Isn't the government supposed t protect us?

Up in arms: The world reacts to "frankenfoods"

Why labeling?

What you can do

Helpful resources

[Back to Education Center](#)

Extra articles

ABC News poll: 93 of Americans percent support labeling

New York Times exposes major league biotech industry bungling

rBGH milk sweeping the nation, despite health concerns

270-group Consumer Federation calls for labeling

Genetically engineered trees coul mean forest-full of problems

Make a donation

Write the media

And scientists worry that there may be additional surprising scientific discoveries down the road.

2. Increased pesticide pollution

Many of the new GE crops, such as Roundup Ready soybeans, are designed to allow farmers to spray heavier doses of pesticides on their land. These pesticides inevitably will find their way into our water and food supply, endangering humans and wildlife.

New Scientist magazine reports that many farmers that have converted to GE production use as many pesticides as their conventional counterparts, while some GE farmers now use more pesticides.

And one of Britain's leading safety experts, Malcolm Kane (former head of food safety at the supermarket chain Sainsbury's), has revealed that the limits on pesticide residues in soy had been increased 200-fold to help the GE industry. He warned that higher pesticide residues could appear in a wide variety of foods, ranging from breakfast cereals to biscuits.

3. Genetic contamination of the environment

When Scottish Parliament member Robin Harper learned that Scottish scientists were experimenting with genetically modified salmon that grow at four times the normal rate, he was horrified, and called for a ban on all genetic engineering experiments.

"We should be extremely concerned about genetically modified fish because of the danger that they could escape into the wild," he said. "It's a similar, if not even more dangerous threat, to that we are facing with GM plants. If a GM fish escaped or was released accidentally in to the wild it could never be recaptured. This fish could breed with wild populations and devastate the existing natural balance with its modified behavior.



"There can be no doubt as to the huge threat GM fish would be to fish stocks wherever they were released in the World's oceans. This fish, if it

StarLink fiasco increases pressure for regulation

Genetically engineered bugs under development

"Blue revolution" coming as scientists develop genetically engineered fish

escaped into the North Atlantic, could do untold damage to the ecology both of the north Atlantic and Scottish salmon rivers."

Like Harper, many scientists are concerned about the widespread release of genetically modified organisms (GMOs) into the environment. In the United States, millions of acres of land have been planted with GE crops. Scientists fear that GMOs will be spread, by bird, insect or wind, to non-GE crops--and to the wilderness. And unlike other kinds of waste, genetic contamination cannot be cleaned up, or contained.

4. GE genes can jump species barrier

In May, 2000, Professor Hans-Hinrich Katz, a leading German zoologist, released research that shows that genes used to modify crops can jump to other species and cause bacteria to mutate. Katz found that the gene used to modify oilseed rape had transferred to bacteria living in the guts of honey bees.

"These findings are very worrying and provide the first real evidence of what many have feared," says prominent genetic engineering critic and scientist Dr. Mae-Wan Ho.

"Everybody is keen to exploit GM technology, but nobody is looking at the risk of horizontal gene transfer. We are playing about with genetic structures that existed for millions of years and the experiment is running out of control."

5. Herbicide resistance and fears of the rise of superweeds

Some scientists fear that the extensive planting of genetically engineered crops will lead to a new class of "superweeds" that are resistant to pesticides. The largest class of genetic engineered foods is pesticide-resistant crops, such as Roundup Ready soybeans. The problem is that newly created transgenes may be spread unintentionally--by bird, insect or wind--from target crops to related weed species. The weeds then also pick up resistance to the pesticide.

Nature magazine reported in 1996, for example, that herbicide-resistant GE oilseed rape, released in Europe, has spread to several

wild relatives.

6. Risks to biodiversity

In one especially macabre application of GE technology, scientists seek to develop "terminator" tree farms. The trees would be engineered not to reproduce, and they would be designed to secrete toxic chemicals through their leaves that would kill leaf-eating insects. The trees also would be engineered to include pesticide resistance, meaning that ground flora could be wiped out easily. Critics say the trees might grow faster than before, but they'd be devoid of bees, butterflies, birds and squirrels that depend on pollen, seed and nectar.



The terminator tree farms highlight a growing concern among scientists: the threat genetically engineered crops pose to biodiversity. Scientists estimate that by the year 2000, the world will have lost 95 percent of the genetic diversity present in agriculture 100 years earlier. GE crops are developed from the same monoculture varieties that giant agribusinesses have planted in the latter half of this century, and will only exacerbate the problem.

Moreover, pesticide-resistant crops will allow the application of increasing amounts of powerful pesticides. These pesticides often kill more than the targeted weeds; they frequently kill beneficial plants outside their intended range.

7. Damage to the soil

Scientists are concerned that genetically mutated crops may damage the soil. Researchers for Nature magazine reported in December that some types of GE crops may be leaking powerful toxins into the soil.

Many GE crops, such as corn and potatoes, have been engineered to produce poisons or toxins to fight pests that eat their leaves and stems. Researchers fear that beneficial soil organisms also may be killed, and that some insects may become resistant to the toxins.

Other researchers have revealed that lacewings that ate corn borers reared on GE corn had also died, increasing speculation that

these crops are harming beneficial organisms.

8. Genetically engineered crops put birds at risk

British researchers in 2000 reported that the use of genetically engineered crops modified to tolerate herbicides may severely cut bird populations on farms. Professor Andrew Watkinson and colleagues from the University of East Anglia in Norwich found that bird populations could decline as much as 90 percent in some areas where herbicide-tolerant crops have been sown.

9. The problem of unintended consequences

Biotech firms assure us there's nothing to worry about. Genetically engineered foods, they say, will save the environment.

But it's a story we've heard before. In the mid-1900s, giant agribusinesses took the biological and chemical weapons from two world wars and turned them into pesticides and herbicides. They promised a wondrous new agricultural era of bigger yields and bug-free produce. It was only decades afterwards that scientists began to realize the scope of the environmental devastation wrought by the explosive growth of the pesticide industry.

In the 1960s, scientist Rachel Carson's epic, **Silent Spring**, awakened a generation to the dangers of dioxin and other manmade chemicals in the environment. But it wasn't until 30 years later that scientists began to understand the extent of the problem. Now we know that pesticides and other manmade chemicals are tampering with sexual development and reproduction, in many animal populations and humans as well.

The discovery that genetically engineered corn might be deadly to Monarch butterflies came as a shock to biotech advocates. If biotech companies continue with their massive experiment, what will our scientists tell us 50 years from now?

Previous

Next



Alaska Trollers Association

130 Seward St., No. 211
Juneau, Alaska 99801
(907) 586-9400
(907) 586-4473 Fax

2004 Legislative Positions

House Bills

HCR 25	Support	Alaska Wild Salmon Week
HJR 32	Support	Labeling of wild and farmed / country of origin
HJR 34	Support	USDA Trade Adjustment Assistance Program
HJR 36	Support	NPS mitigate adverse effects of fishing closures and restrictions
HB 396	Oppose	MSY of "important salmon stocks" and ensuring hatchery brood stock.
HB 409	No Action	Maximum length of seine vessel
HB 410	No Action	CFEC permit buy-back programs
HB 415	No Action	Permit holders (not vessels) fish in multiple areas
HB 419	Oppose as written	Regional seafood development associations and taxes
HB 426	Oppose	Tax certain tourism/recreation-related goods and services
HB 433	Support	Labeling and ID of genetically modified fish & fish products
HB 435	Support	Labeling and misbranding
HB 444	Support	Direct marketing taxes
HB 473	No Action	JV fish processing businesses and tax liability.
HB 478	No Action	Issuance of commercial fishing interim-use permits.

Senate Bills

SCR 19	Support	Support fisheries education
SB 27	No Action	Pesticide Use
SB 281	Support	Labeling and ID of genetically modified fish & fish products
SB 282	Support	Labeling and misbranding
SB 286	Support	Direct marketing taxes
SB 315	No Action	CFEC permit buy-back programs
SB 322	No Action	Salmon enhancement tax rate

ASMI Issues

Support 1% salmon marketing assessment
Neutral on mandatory processor assessment
Support ASMI board size of 11-15 members



Southeast Conference



P.O. Box 21989 Juneau Alaska 99802-1989 Tel. (907) 463-3445 Fax (907) 463-5670

February 27, 2004

Senate Resources
Senator Scott Ogan, Chair
Alaska State Legislature
State Capitol, Mail Stop 3100
Juneau, AK 99801

RE: Support SB 281 – Labeling of genetically modified fish

Dear Senator Ogan,

Southeast Conference supports SB 281 relating to the labeling and identification of genetically modified fish and fish products. Southeast Conference is the State-designated Alaska Regional Development Organization (ARDOR), the Federally-designated Economic Development District (EDD), and the Federally-designated Resource Conservation and Development Council (RC&D) for Southeast Alaska. The mission of Southeast Conference is to undertake and support activities that promote strong economies, healthy communities, and a quality environment in Southeast Alaska. Our over 130 Southeast Alaska members include nearly every community in the region, every chamber of commerce, every major economic development organization, 20 transportation organizations, 10 Alaska Native organizations, and more than 50 other organizations.

SB 281 is legislation that was introduced through the marketing committee of the Salmon Industry Task Force and is based on similar legislation that passed the California State legislature last year. The labeling of genetically modified fish and fish products will help consumers know what they are putting on their dinner plates. It is important to the commercial fishing industry in that it allows our wild Alaska seafood products to be recognized in the marketplace as a superior unmodified food source. The commercial fishing industry is an important component of the fabric of the Southeast region. Differentiating the wild product from a genetically modified product should, in the future, allow for a price differential that will help make the commercial fishing industry more viable in increased ex-vessel value.

The Southeast Conference also recognizes that this legislation is important to the consumer as it required food packaging to be correctly labeled. We encourage you to pass this legislation out of committee. Thank you for your interest.

Sincerely,

Meilani Schijvens
Executive Director

cc: Southeast Caucus



BIOTECHNOLOGY
INDUSTRY
ORGANIZATION

Testimony of the Biotechnology Industry Organization

Submitted to Alaska Senate Committee on Finance

April 28, 2004

Regarding Senate Bill 281:

The Labeling and Identification of Genetically Modified Fish and Fish Products

On behalf of the Biotechnology Industry Organization and its more than 1,000 member companies, please accept this testimony in opposition of mandatory, generalized labeling requirements for biotech foods like those proposed in Senate Bill 281 "An Act relating to labeling and identification of genetically modified fish and fish products." BIO does, however, strongly support the existing federal requirements for accurate and informative food labels, which communicate information that is relevant to health, safety and nutrition.

Senate Bill 281 would require mandatory labeling of biotech fish and fish products developed using biotechnology. This unnecessary and misleading legislation ignores existing science-based federal guidelines on labeling of biotechnology-derived foods. In addition, it would be costly to implement, and would not provide consumers with any beneficial information. Please consider the following rationale:

- **Before being approved for commercialization, all biotech food products (whether plant- or animal-based) must be rigorously reviewed at the federal level for safety—for both human consumption and the environment.** In fact, the Food and Drug Administration (FDA), the Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA)—at a minimum—are involved in the approval and regulation of such products. The FDA evaluates scientific research to determine whether transgenic fish are safe for their intended use, for the fish themselves, and for the environment. FDA's environmental assessment is conducted with the cooperation of the National Marine Fisheries Service and the U.S. Fish & Wildlife Service under the requirements of the National Environmental Policy Act and the Endangered Species Act.
- **The labeling requirements proposed by Senate Bill 281 would be inconsistent with the science-based guidance of the federal government.** Under the Federal Food, Drug and Cosmetic Act, the label of the food must reveal all *material* facts about the food. For

1225 EYE STREET, N.W., SUITE 400
WASHINGTON, D.C. 20005-5958

202-962-9200
FAX 202-962-9201
<http://www.bio.org>

BIO/Senate Bill 281**April 28, 2004****Page 2**

instance, the act requires that if a biotech food differs significantly in its nutritional or allergenic properties than its conventionally produced counterpart, that fact must be disclosed on the label. FDA has taken a science-based approach in developing this guidance and decided biotech foods do not inherently "present any different or greater safety concern than foods developed by [conventional methods]." FDA uses the principal of "substantial equivalence"—focusing on the final product, not the process used to develop a food product, in determining how it should be labeled. In a 2002 letter to Oregon's governor, in fact, FDA stated that its "scientific evaluation of bioengineered foods continues to show that these foods, as currently marketed...are as safe as their conventional counterparts." The FDA guidelines are online at <http://www.cfsan.fda.gov/~dms/biolabgu.html>.

- **Numerous scientific groups, including American Medical Association (AMA), American Council on Science and Health, Council for Agricultural Science and Technology, Institute of Food Technologists, and many more support the FDA's science-based approach to labeling.** In fact, an AMA report found that "[T]here is no scientific justification for special labeling of [biotech foods], as a class, and that voluntary labeling is without value unless it is accompanied by focused consumer education."
- **A patchwork of inconsistent state labeling laws would not benefit consumers.** Mandatory label requirements that vary from state-to-state would not only conflict with the FDA guidelines and be costly to implement and enforce but also would likely confuse consumers.

We hope you will join BIO in opposing Senate Bill 281. If you have any questions or would like additional information on this topic, please feel free to contact Patrick Kelly at 202-962-9200 or by e-mail pkelly@bio.org or Dr. Barbara Glenn, Director of Animal Biotechnology at 202-962-6697 or by e-mail bglenn@bio.org. Thank you for your consideration of this important matter.

Respectfully Submitted,

Patrick M. Kelly
Vice President, State Government Relations
Biotechnology Industry Organization
1225 Eye Street, N.W., #400
Washington, DC 20005
202-962-9200 [ph]
202-962-9201 [fx]
pkelly@bio.org [e-mail]

The Biotechnology Industry Organization (BIO) represents more than 1,000 biotechnology companies, academic institutions, state biotechnology centers and related organizations in 46 U.S. states and 33 other nations. BIO members are involved in the research and development of health care, agricultural, industrial, and environmental biotechnology products.

**SENATE COMMITTEE REPORT
First Committee of Referral**

DATE: 1/28/04

FURTHER: Finance

Date of 5-Day Notice: 2/26/04
(in accordance with Uniform Rule 23)

DATE TURNED
IN TO OFFICE: 3-4-03

Resources Committee considered SENATE BILL NO. 281

SB 281 GENETICALLY MODIFIED FISH

"An Act relating to labeling and identification of genetically modified fish and fish products."

and recommends:

- be replaced with _____ CS _____ (_____)
- adopt previous _____ CS _____ (_____)
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:
<input type="checkbox"/> Same Title
<input type="checkbox"/> New Title
House Bill:
<input type="checkbox"/> Same Title
<input type="checkbox"/> Technical Title Change
<input type="checkbox"/> New Title w/ SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Inuet.	Zero	FN#
DEC	3/1/04			✓	1
LAW	3/3/04			✓	2

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	Do PASS	Do NOT PASS	NO REC	AMEND
Dyson <i>[Signature]</i>	✓			
Lincoln <i>[Signature]</i>	✓			
L. Horn <i>[Signature]</i>	✓			
B. Stevens <i>[Signature]</i>	✓			
Seckins <i>[Signature]</i>	✓			
Vice CHAIR <i>[Signature]</i>	✓			

SB

282

SFIN

FILE

SENATE FINANCE COMMITTEE REPORT

REPORTED OUT

MAY 03 2004

SENATE FINANCE
COMMITTEE

DATE: 3/8/04

FURTHER:

DATE TURNED
IN TO OFFICE: 3 May 2004

Finance Committee considered

SENATE BILL NO. 282

SB 282 PREPARED FOOD:WILD/FARMED FISH DISCLOSURE

"An Act relating to the identification of finfish in food products and to the misbranding of food products consisting of or containing finfish."

and recommends:

- be replaced with _____ CS _____ (_____)
- adopt previous _____ CS SB 282 (RES)
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:

- Same Title
- New Title

House Bill:

- Same Title
- Technical Title Change
- New Title w/ SCR # _____

NEW FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero.	FN#

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#
DEC	3/1/04	77.2			#2
LOW	3/3/04			<input checked="" type="checkbox"/>	#1

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	Do PASS	Do NOT PASS	No REC	AMEND
<i>[Signature]</i>	<input checked="" type="checkbox"/>			
<i>[Signature]</i>	<input checked="" type="checkbox"/>			
<i>[Signature]</i>			<input checked="" type="checkbox"/>	
<i>[Signature]</i>			<input checked="" type="checkbox"/>	
COCHAIR: <i>[Signature]</i>	X			
COCHAIR: <i>[Signature]</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
COCHAIR: <i>[Signature]</i>	<input checked="" type="checkbox"/>			

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: 2
Bill Version: CSSB 282(RES)
(S) Publish Date: 3/8/04

Revision Date/Time (Note if correction): _____ Dept. Affected: Environmental Conservation
Title: Identification of finfish in food products RDU: Environmental Health
Component: Food Safety and Sanitation
Sponsor: Senator Elton
Requester: (S) Resources Component No. 2343

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services	55.9	55.9	55.9	55.9	55.9	55.9
Travel	5.0	5.0	5.0	5.0	5.0	5.0
Contractual	8.4	6.9	6.9	6.9	6.9	6.9
Supplies	1.0	1.0	1.0	1.0	1.0	1.0
Equipment	6.9	0.5	0.5	0.5	0.5	0.5
Land & Structures	0.0	0.0	0.0	0.0	0.0	0.0
Grants & Claims	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	77.2	69.3	69.3	69.3	69.3	69.3

CAPITAL EXPENDITURES						
----------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()	0.0	0.0	0.0	0.0	0.0	0.0
------------------------	-----	-----	-----	-----	-----	-----

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1003 GF Match	0.0	0.0	0.0	0.0	0.0	0.0
1004 GF	77.2	69.3	69.3	69.3	69.3	69.3
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0
Other (Specify Type--Do not abbreviate)	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	77.2	69.3	69.3	69.3	69.3	69.3

Estimate of any current year (FY2004) cost: 0.0

Mark this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time	1	1	1	1	1	1
Part-time	0	0	0	0	0	0
Temporary	0	0	0	0	0	0

ANALYSIS: (Attach a separate page if necessary)

See attached.

Prepared by: Kristin Ryan, Director Phone (907) 269-7645
Division: Environmental Health Date/Time 3/1/04 10:00 AM
Approved by: Kurt Fredriksson, Deputy Commissioner Date 3/1/2004
Agency: Environmental Conservation

FISCAL NOTE #2

STATE OF ALASKA
2004 LEGISLATIVE SESSION

BILL NO. CSSB 282(RES)

ANALYSIS CONTINUATION

SB 282 requires retail food establishments to state on their menus whether the fish they serve is wild or farmed. Regulations would need to be revised, and inspection and compliance resources added to the retail food program to implement this requirement.

An Environmental Health Technician would be hired to implement the requirements of SB 282. The position would survey retail food establishments and solicit menus for compliance review. This position would research and identify the sources and status of fish and fish products that are sold in Alaska and provide technical assistance on this identification to Alaskan suppliers and retail food establishments. The position would also conduct complaint investigations and initiate enforcement action.

Basic position support costs are included for contractual and supplies. An additional \$1.5 in contractual cost is included in the first year to public notice proposed regulations. Equipment cost in FY 2005 includes ordinary office equipment (desk, chair, and office furniture) and a computer workstation with \$.5 in subsequent years for equipment replacement and software upgrades.

Personal Services New Position Detail FN # 2 CSSB 282(RES)

Department of Environmental Conservation

Scenario: A Scenario for FY2005 Fiscal Notes (3605)
 Component: Food Safety & Sanitation (2343)
 RDU: Environmental Health (207)

PCN	Job Class Title	Time Status	Retire Code	Barg Unit	Location	Salary Sched	Range & Steps	Budgeted Months	Split / Annual Count	Annual Salary	COLA	Premium Pay	Annual Benefits	Total Costs
18-#032	Environmental Health Tech.	FT	A	GP	Anchorage	2A	15 B	12.0		38,280	0	0	17,585	55,865

Justification:

Required for implementation of SB 282. Position will research and identify finfish suppliers, provide technical assistance to Alaskan suppliers and retailers, conduct menu reviews, issue approvals, initiate enforcement actions and conduct complaint investigations.

Funding Detail:

1004	General Fund Receipts	100.00%	55,865
Total Funding:		100.00%	55,865

Component Summary:

Total New Positions: 1

Fund Description	Fund Percent	Fund Amount
1004 General Fund Receipts	100.00%	55,865
Total Funding:	100.00%	55,865

Note: If a position is split, an asterisk (*) will appear in the Split/Count column. If the split position is also counted in the component, two asterisks (**) will appear in this column.

MAY 03 2004

SENATE FINANCE
COMMITTEE

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number: 1
Bill Version: CSSB 282(RES)
(S) Publish Date: 3/8/04

Revision Date/Time (Note if correction): _____ Dept. Affected: LAW
Title "An Act relating to the identification of finfish in rDU CIVIL
food products and to the misbranding of food products consisting..." Component Natural Resources
Sponsor Senator Elton
Requester Senate Resources Committee Component No. _____

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services						
Travel						
Contractual						
Supplies						
Equipment						
Land & Structures						
Grants & Claims						
Miscellaneous						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES						
-----------------------------	--	--	--	--	--	--

CHANGE IN REVENUES ()						
-------------------------------	--	--	--	--	--	--

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1037 GF/Mental Health						
Other (Specify Type--Do not abbreviate)						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of any current year (FY2004) cost: 0.0
Mark this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time						
Part-time						
Temporary						

ANALYSIS: *(Attach a separate page if necessary)*
This bill amends the Alaska Food, Drug, and Cosmetic Act, adding a new section requiring that food establishment menus discern between wild fish and farmed fish in prepared food products. A federal version of farmed fish labeling legislation was enacted last fall.

Passage of this legislation will have no fiscal impact on the Department of Law.

Prepared by: Kathryn A. Daughhete, Director Phone 465-3673
Division Administrative Services Date/Time 3/3/04 8:20 AM
Approved by: Kathryn Daughhete for Gregg D. Renkes, Attorney General Date 3/3/2004
Agency Department of Law



SENATOR KIM ELTON

SB 282
Sponsor Statement

"An Act relating to the identification of finfish in food products and to the misbranding of food products consisting of or containing finfish."

SB 282 requires retail food establishments to state on its menu whether fish it is selling in a prepared food product is wild fish or farmed fish. State law currently provides that farmed fish be identified on the label when the fish is sold at the retail level.

Recent reports in the scientific and general media focus on increased toxin loads in farmed fish and environmental degradation near fish farm sites. Restaurant consumers in Alaska deserve the same notice as retail consumers when they make purchase decisions based on whether the fish is farmed or wild.

The Joint Legislative Salmon Task Force comprised of legislators, seafood harvesters and seafood processors has unanimously supported SB 282.

ALASKA SENATE

STATE CAPITOL • JUNEAU, ALASKA 99801-1182 • (907) 465-4947 • FAX (907) 465-2108
SENATOR_KIM_ELTON@LEGIS.STATE.AK.US



Sunday, January 25, 2004

P-I Focus: Farming is a net-loss proposition -- ecologically, socially and economically

A Salmon Scare

By JOHN VOLPE

From the perspective of the specialist, it is a mixed blessing when the world turns its attention to your chosen area of endeavor. You feel somehow legitimized when, if only briefly, the public shares your own intense interest in the issues to which you have devoted your professional life. However, initial excitement quickly gives way to exasperation as rhetoric overshadows the substantive deliberation necessary to move from knowledge to understanding.

As a university professor dealing with issues surrounding seafood ecology, I toil in relative obscurity. The bread and butter of my research is how the relationship between the fishing and aquaculture industries is altering ecological, social and economic checks and balances the world over.

The landmark study detailing the greatly increased toxin loads found in farm salmon relative to their wild counterparts has thrust me and my colleagues around the world into the media limelight for a few moments. A seemingly endless parade of cameras and microphones has passed through my lab recently at the University of Alberta in search of expert opinion to put these startling data in perspective.

On average, farm-raised salmon have an order of magnitude higher load of cancer causing POPs (persistent organic pollutants) than wild caught salmon. This is not new. In fact over the last few years three other such studies -- albeit much smaller -- have come to nearly identical conclusions. As the dust settles around the current research, attention is shifting to consumer reaction and what effect this news will have on the aquaculture industry.

What I have not seen in any of the worldwide coverage is anyone asking "Why?" By this I don't mean, "Why are toxin loads higher in farm salmon?" The answer is straightforward and was predicted long ago from well-established bioaccumulation principles. Nor am I referring to the implied paradigm of the existence of such a thing as a safe level of carcinogen. No, my frustration is rooted in the deafening absence of what should be a vigorous debate -- "Why industrial aquaculture?" -- or more specifically -- "Why industrial salmon aquaculture?"

Consider the following:

- Current production methods adopt maximum economies of scale. Thus, feedlot style, open net-pens in the oceans simultaneously maximize

consumption of marine (read: public) resources (i.e. fresh, oxygenated water) while offloading production wastes (feces, uneaten food) and byproducts (toxins, antibiotic residues, escaped fish, bioamplified parasites and pathogens). Each net-pen (numbering in the hundreds on both of Canada's coasts) is tantamount to an untreated sewer outfall introducing solid and dissolved wastes directly into the marine environment. This is in every way "industrial waste," disposed of at no charge.

- The unnaturally high densities of animals in the feedlot environment of net-pens make that environment a breeding ground for disease and parasites. Recently in British Columbia, farm-derived parasites were implicated as the causal agent leading to the largest salmon cohort collapse on record anywhere in the world, ever.
- Three to five kilos of edible fish are used to make one kilo of farm salmon; a net loss of protein badly needed by humanity.
- The contribution of the salmon aquaculture industry to British Columbia's gross domestic product in 2001, as calculated by the Canadian Centre for Policy Alternatives, was \$87 million. Marine-based industries directly jeopardized by salmon farming, including commercial and sport fisheries and marine tourism, contributed \$582 million, or 51 percent of the provincial total.
- Salmon farming in Canada is dominated (greater than 80 percent of B.C. production) by foreign-owned multinational companies seemingly intent on liquidating Canada's natural marine capital for a very small profit. A similar arrangement characterizes the Washington state industry.
- Farm salmon overproduction (principally from Chile and Norway) has driven the price of all salmon to all-time lows. This forces Canadian and American farms to slash jobs to remain competitive and has brought ruin to coastal fishing communities across the Northern Hemisphere (which depend on a fair price for their wild catch).

So, even a cursory review of the available information leads to the question of why we are engaging in this activity? This industry is clearly a net-loss proposition, whether viewed from the ecological, social or economic perspective. Consumers have either been uninformed or have opted to turn a blind eye to these facts. Admittedly, the cause-and-effect relationship between the viability of the world's oceans and your choice of entree is not as obvious as it could or should be but that does not make it any less real.

The take-home message of the recent research is that we can no longer ignore the natural law that what is bad for the environment is bad for your health. Perhaps if industrial salmon aquaculture really held promise to feed the world's hungry or revitalize our struggling coastal communities or even provide a worry-free epicurean experience, there would be reason to give that industry the benefit of the doubt.

Alas, the farm-raised salmon destined for your dinner plate arrives with overwhelming environmental and social baggage, in addition to -- as we now know -- not being as healthful as you've been told.

As with most enviro-social dilemmas, there is hope, and options are available to consumers. The wild Pacific salmon fishery, contrary to popular belief, is not dead. Its major problem has not been lack of wild salmon, which have been plentiful in recent years. Rather, the problem has been to remain viable in the face of rock-bottom prices from the farms offloading costs of production to our coastal habitats. There are five wild Pacific salmon species, each unique in taste and texture.

Advances in flash freezing at sea have resulted in continent-wide availability of a prime product 12 months of the year. In fact, for anyone who cares about what she/he eats, Internet communication and entrepreneurial spirit have combined to make it possible to buy fish (not just salmon) directly from the fisherman, regardless of location (some even have on-board Web cams). Supporting these fisheries not only does your body a service but also helps to support the dozens of coastal communities hurt by plummeting salmon prices.

The major hurdle to the informed consumer is the current lack of labeling in supermarkets and restaurants. Without consistent labeling (farmed or wild, country of origin), the consumer cannot make an informed decision. Currently grocers and restaurants are not required to provide this information, a situation that is unfair to consumers and must change.

The moral of this story resonates far beyond the farm salmon debate, coloring all of industrial agriculture: There are no shortcuts. So long as market forces alone shape how our food is produced, we will be faced with similar reality checks with increasing frequency and magnitude. Market forces only work when truthful product labeling and public understanding of all the costs accompany them.

Indeed, the current crop of toxic farm salmon stories appearing in this paper compete for page space with mad cow disease coverage, transgenic crops and the like -- all born of the shortsighted demand for more with less.

In light of the remarkable shortcomings of this industry, it is time consumers *and* bureaucrats recognize that industrial salmon farming is a solution in search of a problem. Aquaculture in general has a bright future to be sure, but farm-rearing salmon is no one's idea of sustainability. The story is not just that farm salmon have greatly elevated toxin loads, but that this is actually the thin edge of the wedge.

John Volpe is assistant professor of fisheries and seafood ecology at the University of Alberta-Edmonton.

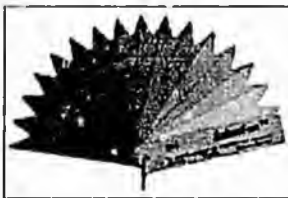
Think Twice About Eating Farmed Salmon

Salmon Farming and Human Health

Nutrition

A single serving of most seafood, including wild or farmed salmon, provides the daily requirement of healthy Omega 3 - an essential fatty acid with many health benefits. However, wild fish have a higher Omega 3 to Omega 6 ratio than farmed salmon which is best for your diet and overall health.

Farmed Atlantic salmon also contain higher levels of unhealthy saturated fats than wild coho, sockeye, steelhead pink and chum salmon. In addition, preliminary research indicates farmed salmon have up to 10 times more PCBs and dioxins than wild salmon. People who eat between 1 and 3 servings of farmed salmon per week are exposed to an amount of contaminants which exceeds the safety level set by the World Health Organization.



SalmoFan - CAAR Files

The food given to farmed salmon does not contain the natural sources of color and as a result, their flesh is an unappetizing gray color. To make their product more marketable, fish farm companies choose what color they want their salmon from the SalmoFan. Chemical additives are then added to the fish feed.

Farmed Atlantic salmon contain 200 per cent more unhealthy, saturated fat than wild pacific pink or chum salmon. This has led some health professionals to question the nutritional value of farmed salmon.

In a letter urging retailers to stop selling farmed salmon to customers, Warren Bell MD, president of the Canadian Association of Physicians for the Environment (CAPE) writes, "Not only is the fat content of farmed salmon higher than that of wild salmon but the composition of farmed salmon fat is also less healthy than that of wild salmon fat." He also writes that, "Another issue of concern to consumers is the fact that the monitoring of residues of antibiotics and other drugs in farmed salmon is inadequate."

Antibiotics & Biocides

Disease and parasites are frequent occurrences on salmon farms. Farmers attempt to control these problems by using powerful drugs including antibiotics and biocides. Farmed salmon are fed more antibiotics per pound, than any other livestock in North America.

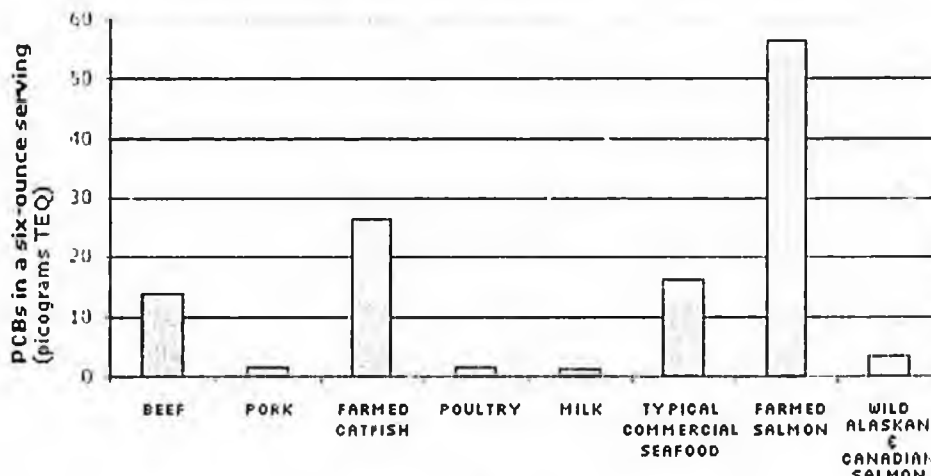
Excess drugs make their way along the food chain. Research suggests that between 74-100 per cent of wild fish caught near farms contain antibiotics in their flesh. Escaped fish caught in a Broughton Archipelago stream were found carrying bacteria known to cause a range of human maladies and these bacteria were resistant to 10 different antibiotics. Excessive use of antibiotics has already led to the development of antibiotic resistant "super-bugs".

Summary — PCBs in farmed salmon

Seven of ten farmed salmon purchased at grocery stores in Washington DC, San Francisco, and Portland, Oregon were contaminated with polychlorinated biphenyls (PCBs) at levels that raise health concerns, according to independent laboratory tests commissioned by Environmental Working Group.

These first-ever tests of farmed salmon from U.S. grocery stores show that farmed salmon are likely the most PCB-contaminated protein source in the U.S. food supply. On average farmed salmon have 16 times the dioxin-like PCBs found in wild salmon, 4 times the levels in beef, and 3.4 times the dioxin-like PCBs found in other seafood. The levels found in these tests track previous studies of farmed salmon contamination by scientists from Canada, Ireland, and the U.K. In total, these studies support the conclusion that American consumers nationwide are exposed to elevated PCB levels by eating farmed salmon.

A serving of farmed salmon has up to 40 times more PCBs than other foods



NOTES: The levels shown on this figure represent the sum of the 12 PCB compounds that resemble dioxin, widely recognized as the most toxic of all industrial pollutants, and linked to cancer as well as to damage of the nervous, reproductive, and immune systems. PCB concentrations are shown as toxic equivalents (TEQs) of 2,3,7,8-Tetrachlorodibenzo-p-dioxin, the leading dioxin chemical.

SOURCE: EWG analysis of data from *Wjg* (2002), *Eastern et al.* (2002), EPA (2000a and 2000b), *Hedler et al.* (2000), *Jacobs et al.* (2002), *NMFS* (2002), *NAS* (2003), *Schechter et al.* (2001), and *USDA* (2002).

LINK: [Methodology and References](#)

PCBs are persistent, cancer-causing chemicals that were banned in the United States in 1976 and are among the "dirty dozen" toxic chemicals slated for global phase-out under the United Nations Convention on Persistent Organic Pollutants, signed by

President Bush on May 23, 2001. Because of their persistence, PCBs continue to contaminate the environment and the food supply.

A number of studies show that farmed salmon accumulate PCBs from the fishmeal they are fed. The feed is often designed to have high amounts of fish oil and is made largely from ground-up small fish. PCBs concentrate in oils and fat, and previous tests of salmon feed have consistently found PCB contamination.

If farmed salmon with the average PCB level found in this study were caught in the wild, EPA advice would restrict consumption to no more than one meal a month. But because farmed salmon are bought, not caught, their consumption is not restricted in any way.

This is because the EPA sets health guidance levels for PCBs in wild-caught salmon, and its standards, which were updated in 1999 to reflect the most recent peer-reviewed science, are 500 times more protective than the PCB limits applied by the Food and Drug Administration (FDA) to commercially-sold fish. The FDA has not updated its PCB health limit for commercial seafood since it was originally issued in 1984. In the intervening two decades new scientific research has shown that the PCBs that build up in fish and people are more potent cancer-causing agents than originally believed, and that they present other health risks as well, in particular neurodevelopmental risks to unborn children from maternal consumption of PCB-contaminated fish.

When the FDA's standard was developed, salmon was something of a rarity in the U.S. diet. Today it is standard fare at home and in restaurants, particularly among consumers who are health-conscious, well educated, and relatively affluent. Last year salmon overtook "fish sticks" as the third most popular seafood in the American diet (trailing only tuna and shrimp). The increased consumption was made possible by the explosive growth in salmon farming, an industrial system that produces the fish in vast quantities at a price far lower than wild salmon.

Seven of the farmed salmon we tested came from factory-scale farms in Canada, the U.S., and Iceland. Six of these seven were polluted with PCBs at levels that would be safe to eat no more than once a month, according to EPA health standards. About 23 million Americans eat salmon more than once a month, the majority of it farmed salmon. One salmon imported from Scotland contained PCBs at levels so high that EPA would restrict consumption to no more than six meals a year, if the salmon were caught, not bought.

The farmed salmon industry claims that both farmed and wild salmon can be eaten safely more than once a week. This claim relies on FDA's outdated contamination limit. In EWG's testing program, nine of 10 farmed salmon tested from five countries of origin failed EPA's health-based limits for weekly consumption (6000 parts per trillion), exceeding the standard by an average of 4.5 times. A pilot study published by Canadian scientists last year showed that farmed Canadian salmon contain ten times the PCBs of wild Alaskan and Canadian salmon.

EWG's analysis of seafood industry fish consumption data shows that one quarter of all adult Americans (52 million people) eat salmon, and about 23 million of them eat salmon more often than once a month. Based on these data we estimate that 800,000 people face an excess lifetime cancer risk of more than one in 10,000 from eating farmed salmon, and 10.4 million people face a cancer risk exceeding one in 100,000. The government's preferred level of increased risk from contaminants like PCBs is no more than one in one million, a threshold set to account for a regulatory system that addresses chemicals or chemical classes individually and is unable to set safe levels for the complex mixtures of hundreds of industrial chemicals to which people are exposed.

Recommendations

Six of every ten salmon sold in stores and restaurants are raised in high-density fish pens in the ocean, managed and marketed by the salmon farming industry. These fish are eaten by a quarter of all adults in the U.S. and experts predict that the exponential growth of the farmed salmon industry will continue.

Farm-raised fish are here to stay. If raised correctly, these fish can help meet global demand for high-quality protein and take some of the pressure off of highly depleted populations of wild fish. But major reforms to the industry are needed.

In addition to the well documented ecological problems with salmon farming, there is now compelling evidence of near industry-wide contamination with unacceptably high levels of PCBs.

To remedy this problem, we recommend that:

- Congress pass a funding increase for FDA to support testing of farmed salmon and other protein sources for PCBs.
- The Food and Drug Administration move quickly to conduct a definitive study of PCB contamination in farmed salmon, and make all results public. This testing is critical, because FDA will be unable to update its regulation on PCBs in farmed salmon until the agency conducts its own laboratory studies.
- The FDA issue a PCB health advisory for seafood consumption in line with current PCB health guidance issued by the EPA.
- Policy-makers do more to preserve salmon habitat in Alaska, where, preliminary indications are, fish are naturally low in PCB contamination.
- The salmon farming industry monitor salmon feed for PCB contamination and shift or refine feed sources to produce fish lower in PCBs and other pollutants.

What you can do

To reduce your exposure to PCBs, trim fat from fish before cooking. Also, choose broiling, baking, or grilling over frying, as these cooking methods allow the PCB-laden fat to cook off the fish. When possible, choose wild and canned Alaskan salmon instead of farmed, and eat farmed salmon no more than once a month.

Two Groups to Sue Farmed Salmon Industry

TERENCE CHEA, Associated Press Writer

AP Online 01-23-2004

Dateline: SAN FRANCISCO

The farmed salmon industry faces legal action in California for failing to warn consumers that the fish contain what environmental groups say are potentially dangerous levels of cancer-causing chemicals.

The Environmental Working Group and the Center for Environmental Health filed notice last week of their intent to sue 50 salmon farms, fish processors and grocery chains under a California anti-toxics law.

"Our goal is to challenge them to change their practices so their fish is safe to eat," said Michael Green, executive director for the Oakland-based Center for Environmental Health.

The potential lawsuit comes after a major study published earlier this month in the journal *Science* found that farm-raised salmon contains significantly more contaminants than salmon caught in the wild because of PCBs, polychlorinated biphenyls, in feed. It recommended that farmers change fish feed and urged consumers to buy wild salmon.

The farmed salmon industry disputes the conclusions, citing experts who say the benefits outweigh the risks of eating farmed salmon.

"(Consumers) will be doing themselves and their families a great disservice if they stop eating farmed salmon," said Alex Trent, executive director of the trade group Salmon of the Americas. He noted that farmed salmon, a source of heart-healthy omega-3 fatty acids, is much cheaper than wild salmon and can be purchased year-round.

Under Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, companies are required to notify consumers if their products contain hazardous levels of chemicals known to cause cancer or reproductive harm.

State law requires private groups to first file notice of their intent to sue to give the state attorney general and other prosecutors 60 days to decide whether to join or take over the lawsuit.

Defendants named include major U.S. grocery chains such as Safeway Inc., Kroger Co., Albertsons Inc. and Costco Wholesale Corp. and farmed salmon producers in Canada and Europe.

Risky behaviour: Well, it's up to you; Peter McKnight
Vancouver Sun 01-19-2004

Let's say the Environmental Protection Agency and Health Canada give you conflicting information about the safety of eating farmed salmon. Whom should you trust?

The answer: Trust yourself.

That's a bit cryptic, I know, but then there's been a lot of cryptic reporting on this subject. So let me try to clarify.

On Jan. 9, Science magazine published the now (in)famous study that found farmed salmon had much higher levels of polychlorinated biphenyls (PCBs) than wild salmon.

Specifically, farmed salmon had average PCB levels of 36.63 parts per billion, compared to 4.75 parts per billion for the wild variety.

By themselves, those numbers are uncontroversial. After all, even fish farmers admit their fish contain higher PCB levels than wild salmon.

However, the researchers also relied on Environmental Protection Agency guidelines (which set limits for PCBs in fish at 24-48 parts per billion), and concluded that it might not be safe to eat farmed salmon.

That prompted a quick response from the U.S. Food and Drug Administration and Health Canada, both of which set limits for PCBs at 2,000 parts per billion.

Health Canada issued a news release stating that, based on its risk assessment, "consuming farmed salmon does not pose a health risk to consumers."

So who's right? The EPA or the FDA and Health Canada?

Someone must be correct, since this is all based on science, right? Well, no.

While the amount of PCBs in fish is a scientific fact, a recommendation -- whether it be to eat or avoid salmon -- is necessarily a value judgment.

Agencies look at the (scientifically verified) amount of PCBs in contaminated fish and then decide what they consider to be an "acceptable" risk.

What counts as acceptable depends, of course, on the values of the agency.

For example, the EPA guidelines are based on the amount of PCBs that could cause one case of cancer in 100,000 people over a 70-year lifetime.

But why choose one in 100,000 as an appropriate limit? Why not one in a million? Or one in 10,000?

There's no scientific answer to that question because it's not a scientific question.

Science is a purely descriptive, rather than prescriptive, enterprise.

It deals with cold, hard facts, and tells us how things are rather than how they should be.

In other words, science can tell us how many PCBs are in fish, and it can approximate the probability that we will develop cancer if we eat contaminated fish.

But safety is another matter entirely, since nothing is 100 per cent safe. When agencies label a food unsafe, they are making a prescription: They are saying you shouldn't eat the food.

That is a value judgment -- it's a statement of how much risk the agencies think you should assume. But, ultimately, only you can decide what is an acceptable risk.

Interestingly, we engage in risky behaviour every day, without even thinking about it. Everything we do has attendant risks -- from driving a car (relatively speaking, a highly dangerous activity) to taking a shower (perhaps the most dangerous thing you do in your own home) to eating farmed salmon.

Yet when a scientific study appears, we suddenly look to scientists to tell us whether we should continue to engage in certain activities.

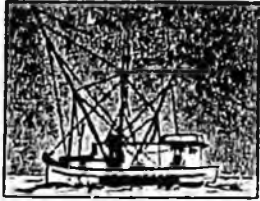
Scientists simply can't tell us that -- they can only suggest what might happen to us if we do so. As far as eating farmed salmon is concerned, it's up to each of us to decide whether the risk is worth it.

In the final analysis, the whole shebang comes down to what my mother used to say whenever she was dissatisfied with the many hare-brained decisions I've made.

"It's your life," Mom would say. And she was right.

It is your life, and while you can and should avail yourself of information provided by scientists, no one but you -- not scientists, or government agencies, or environmental activists, or fish farmers -- can tell you how to live it.

(Copyright Vancouver Sun 2004)



Alaska Trollers Association

130 Seward St., No. 211
Juneau, Alaska 99801
(907) 586-9400
(907) 586-4473 Fax

2004 Legislative Positions

House Bills

HCR 25	Support	Alaska Wild Salmon Week
HJR 32	Support	Labeling of wild and farmed / country of origin
HJR 34	Support	USDA Trade Adjustment Assistance Program
HJR 36	Support	NPS mitigate adverse effects of fishing closures and restrictions
HB 396	Oppose	MSY of "important salmon stocks" and ensuring hatchery brood stock.
HB 409	No Action	Maximum length of seine vessel
HB 410	No Action	CFEC permit buy-back programs
HB 415	No Action	Permit holders (not vessels) fish in multiple areas
HB 419	Oppose as written	Regional seafood development associations and taxes
HB 426	Oppose	Tax certain tourism/recreation-related goods and services
HB 433	Support	Labeling and ID of genetically modified fish & fish products
HB 435	Support	Labeling and misbranding
HB 444	Support	Direct marketing taxes
HB 473	No Action	JV fish processing businesses and tax liability.
HB 478	No Action	Issuance of commercial fishing interim-use permits.

Senate Bills

SCR 19	Support	Support fisheries education
SB 27	No Action	Pesticide Use
SB 281	Support	Labeling and ID of genetically modified fish & fish products
SB 282	Support	Labeling and misbranding
SB 286	Support	Direct marketing taxes
SB 315	No Action	CFEC permit buy-back programs
SB 322	No Action	Salmon enhancement tax rate

ASMI Issues

Support 1% salmon marketing assessment
Neutral on mandatory processor assessment
Support ASMI board size of 11-15 members

SENATE COMMITTEE REPORT

First Committee of Referral

DATE: 1/28/04

FURTHER: Finance

Date of 5-Day Notice: 2/26/04
(in accordance with Uniform Rule 23)

DATE TURNED
IN TO OFFICE: 3-8-04

Resources Committee considered SENATE BILL NO. 282

SB 282 PREPARED FOOD:WILD/FARMED FISH DISCLOSURE

"An Act relating to the identification of finfish in food products and to the misbranding of food products consisting of or containing finfish."

and recommends:

- be replaced with _____ CS SB 282 (RES)
- adopt previous _____ CS _____ (_____)
- attached amendment(s)
- adopt Letter of Intent by _____ Committee
- further referral to _____ Committee

Senate Bill:	
<input checked="" type="checkbox"/>	Same Title
<input type="checkbox"/>	New Title
House Bill:	
<input type="checkbox"/>	Same Title
<input type="checkbox"/>	Technical Title Change
<input type="checkbox"/>	New Title w/ SCR # _____



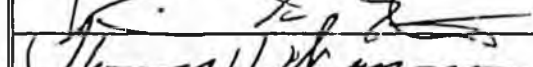
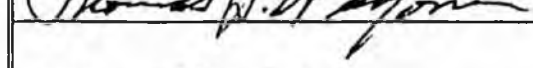
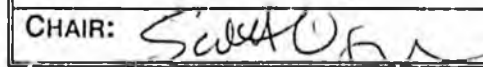
NEW FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#
LAW	3/3/04			✓	1
DEC	3/1/04	✓			2

PREVIOUS FISCAL NOTE(S):

Department	Date	Fiscal	Indet.	Zero	FN#

APPROPRIATION - no fiscal note

SIGNATURES AND RECOMMENDATIONS:	DO PASS	DO NOT PASS	NO REC	AMEND
<i>Lincoln</i> 	✓			
<i>B Skewis</i> 	✓			
<i>Elton</i> 	✓			
<i>Wagoner</i> 	✓			
<i>Ogan</i> CHAIR: 			✓	

