

# AI Insurance Review

## Outstanding Decisions Summary

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April 23, 2018

### *Issue:*

To provide a summary of the recommendations of the Insurance Review Committee for the regulated poultry boards and commission consideration in making decisions regarding the establishment of an Infected Premises C&D Cost Recovery Fund and the operational policies for the fund; the level of coverage, initial capital, annual costs, share of costs and risk transfer mechanisms.

### *Summary of Recommendations*

The Insurance Review Committee (the “Committee”) recommends that the regulated poultry boards and commission support the establishment of a collective Infected Premises C&D Cost Recovery Fund (the “Fund”) by October 1, 2018 to provide assurance to regulated poultry producers that the boards and commission have committed to a predictable level of funding support to cover the extraordinary cost to C&D infected premises of a NAI discovery. The Fund would be guided by the following high level policies which would be included in a Fund agreement that also details governance and operational procedures:

### Level of Coverage

The Committee recommends coverage by sector and bird type to be set as follows:

- Breeders \$2.00 per bird;
- Broilers \$1.00 per bird;
- Turkey broilers \$0.84 per bird;
- Turkey hens \$1.44 per bird;
- Turkey toms \$2.60 per bird; and
- Layers \$0.75 per bird, subject to CEIRA providing comprehensive NAI coverage as an addition to the current SE insurance for egg producers in BC

### Fund Capital

In accordance with the J.S. Cheng and Partners Inc. (JSCP) January 2018 actuarial assessment, the Committee recommends a minimum of \$1 million to establish the Fund to cover foreseeable costs for infected premises C&D resulting from a NAI discovery. The four regulated boards and commission would equally share the initial capital contributions. Replenishment of the initial capital after losses or growing the capital would be based on the actuarially based share of risk. The Committee further recommends that in the event of losses, the Fund be maintained at \$1.0 million and consider growing the Fund over time.

### Annual Cost of the Fund

The annual costs of the Fund are dependent on various objectives such as:

- Retaining or transferring the risk
- Fund growth targets
- Fund administration
- Expected losses
- Reinsurance costs if the risk is transferred

The Committee recommends that a commitment be made to incur and share the annual costs as long as the Fund remains operational.

### Share of Annual Costs

The January 2018 actuarial analysis established a baseline distribution of the risk between the four poultry sectors to be adopted in establishing the share of annual contributions/premiums for the Fund. Subject to CEIRA providing comprehensive NAI coverage for egg producers, the share of risk to be adopted will be based on the \$0.75 per bird indemnity for layers option which generated annual expected loss shares by sector of:

- Breeders 18.6%
- Broilers 35.4%
- Layers 19.7%
- Turkeys 26.3%

Failure of CEIRA to provide NAI coverage by September 30, 2018, the share of risk will be based on the expected losses at \$2.50 per bird indemnity for layers option which generated annual expected loss shares by sector of:

- Breeders 12.7%
- Broilers 24.3%
- Layers 45.0%
- Turkeys 18.0%

### Retain or Transfer Risk

Retaining the risk provides a simple approach and minimizes annual costs of the Fund, it does not provide the assurance that excess losses (those exceeding the Fund capital of \$1.0 million) or that losses following a depletion of the Fund will be covered. The federal and provincial government through the Canadian Agricultural Partnership (CAP) Program provides funding for administrative capacity building of industry owned risk management schemes. Based on the potential to reduce the start-up and annual administrative costs for up to 5 years, the Committee recommend the boards and commission

- Transfer the risk via a cost-effective risk transfer mechanism; and
- Request the BC Ministry of Agriculture support for an application to the CAP Program to insure the Fund.

### Risk Transfer Mechanism

The Committee considered the options for insuring the Fund through the use of a captive, a reciprocal or a group funded deductible plan. Based on analysis of the opportunities and challenges, benefits and costs, the Committee recommends the use of a group funded deductible plan as the initial risk transfer mechanism to provide excess loss coverage and protect the Fund.

### Next Steps

The Committee encourages the boards and commission to make timely decisions regarding the establishment of the Fund based on the above listed recommendations. A proposed decision is attached.

The establishment of the Fund will require BC Farm Industry Review Board prior approval, per their August 2014 Supervisory Review directives. Prior to submission to BC FIRB for prior approval, the boards and commission should post the decisions for stakeholder comment.

# AI Insurance Review

## Board Decision

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After due consideration of the studies and analyses to assess the impacts and effects of a Notifiable Avian Influenza discovery; sound marketing policy considerations and the recommendations of the Insurance Review Committee, the [boards/ commission] agrees to seek BC Farm Industry Review Board prior approval as set out in their August 14, 2015 Order to establish a BC Poultry Infected Premises Cleaning and Disinfecting Cost Recovery Fund (the “Fund”) to facilitate the prompt recovery and return to a system of orderly marketing. The Fund will provide quota holding licenced poultry producers, with the assurance that funding is committed and available to address the extraordinary cost of infected premise cleaning and disinfecting and not delay decisions to initiate and complete the process. The creation of the Fund requires Board commitment to:

- Requesting BC FIRB prior approval to establish a collective Fund.
- Provide a \$250,000 contribution towards the initial capital of the Fund.
- Agree to share the annual costs to grow, sustain and manage the Fund.
- Establish a Fund Management Committee to finalize the operational details of the Fund, including but not limited to:
  - Governance principles for managing the Fund;
  - The annual costs for the Fund;
  - Operational policies to guide the Fund; and
  - The risk transfer mechanism to insure the Fund.
- Appoint a member to the Fund Management Committee.

*Sample costs for various options:*

***Scenario 1 – Boards and Commission retain the full risk of the Fund (self-insured option)***

Assumptions:

- Initial capital funding of \$1.0 million
- Fund growth objectives:
  - Grow capital to \$3.0 million over 5 years
- No annual administrative costs charged to the Fund (internalized by the boards and commission)
- No losses incurred in the first 5 years

	<b>Initial Capital</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Total After 5 years</b>
<b>Breeders (18.6%)</b>	\$250,000	\$74,400	\$74,400	\$74,400	\$74,400	\$74,400	<b>\$622,000</b>
<b>Broilers (35.4%)</b>	\$250,000	\$141,600	\$141,600	\$141,600	\$141,600	\$141,600	<b>\$958,000</b>
<b>Layers (19.7%)</b>	\$250,000	\$78,800	\$78,800	\$78,800	\$78,800	\$78,800	<b>\$644,000</b>
<b>Turkeys (26.3%)</b>	\$250,000	\$105,200	\$105,200	\$105,200	\$105,200	\$105,200	<b>\$776,000</b>
<b>Industry Contribution</b>	<b>\$1,000,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$3,000,000</b>
<b>Accumulated Fund Total (\$ million)</b>	<b>\$1.00</b>	<b>\$1.40</b>	<b>\$1.80</b>	<b>\$2.20</b>	<b>\$2.60</b>	<b>\$3.00</b>	

**Scenario 2 – Boards and Commission retain full risk of the Fund (self-insured option)**

Assumptions:

- Initial capital funding of \$1.0 million
- Fund growth objectives:
  - Grow capital to \$3.0 million over 10 years
- No annual administrative costs charged to the Fund (internalized by the boards and commission)
- A multiple IP HPAI event loss similar to 2014 incurred at year 5

	<b>Initial Capital</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Year 8</b>	<b>Year 9</b>	<b>Year 10</b>	<b>Total After 10 years</b>
<b>Breeders (18.6%)</b>	\$250,000	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	<b>\$622,000</b>
<b>Broilers (35.4%)</b>	\$250,000	\$70,800	\$70,800	\$70,800	\$70,800	\$70,800	\$70,800	\$70,800	\$70,800	\$70,800	\$70,800	<b>\$958,000</b>
<b>Layers (19.7%)</b>	\$250,000	\$39,400	\$39,400	\$39,400	\$39,400	\$39,400	\$39,400	\$39,400	\$39,400	\$39,400	\$39,400	<b>\$644,000</b>
<b>Turkeys (26.3%)</b>	\$250,000	\$52,600	\$52,600	\$52,600	\$52,600	\$52,600	\$52,600	\$52,600	\$52,600	\$52,600	\$52,600	<b>\$776,000</b>
<b>Industry Contribution</b>	<b>\$1 million</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$3,000,000</b>
<b>HPNAI Loss</b>						<b>\$750,000</b>						
<b>Accumulated Fund (\$ millions)</b>	<b>\$1.00</b>	<b>\$1.20</b>	<b>\$1.40</b>	<b>\$1.60</b>	<b>\$1.80</b>	<b>\$1.25</b>	<b>\$1.45</b>	<b>\$1.65</b>	<b>\$1.85</b>	<b>\$2.05</b>	<b>\$2.25</b>	

The Fund will be short \$750,000 of the \$3 million target after 10 years.

### Scenario 3 – The Fund is insured via a Group Funded Deductible

#### Assumptions:

- Initial capital funding of \$1.0 million
- Reinsurance objectives:
  - \$100,000 loss retention by the Fund
  - \$3 – 5 million in stop loss coverage
- Annual premium - \$140,000 (rounded up from \$0.75 per layer option value of \$129,627)
  - Annual expected loss - \$20,000 (Fund growth)
  - Annual operating cost - \$70,000
  - Annual reinsurance premium - \$50,000
- Set-up cost of group funded deductible plan in Year 1 \$50,000 (in addition to the annual costs)
- No losses incurred in the first 5 years

	Initial Capital	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total After 10 years
<b>Breeders (18.6%)</b>	\$250,000	\$35,340	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	<b>\$519,700</b>
<b>Broilers (35.4%)</b>	\$250,000	\$67,260	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	<b>\$763,300</b>
<b>Layers (19.7%)</b>	\$250,000	\$37,430	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	<b>\$535,650</b>
<b>Turkeys (26.3%)</b>	\$250,000	\$49,970	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	<b>\$631,350</b>
<b>Industry Contribution</b>	<b>\$1,000,000</b>	<b>\$190,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$2,450,000</b>
<b>Accumulated Fund Total (\$ million)</b>	<b>\$1.00</b>	<b>\$1.02</b>	<b>\$1.04</b>	<b>\$1.06</b>	<b>\$1.08</b>	<b>\$1.10</b>	<b>\$1.12</b>	<b>\$1.14</b>	<b>\$1.16</b>	<b>\$1.18</b>	<b>\$1.20</b>	

In the event of a loss equivalent to the 2014 HPNAI of \$750,000 in year 5 per Scenario 2 would trigger \$100,000 of retained loss and the capital reserve would be \$1.0 million. Reinsurance would reimburse the Fund for \$650,000 of excess loss claims paid.

**Scenario 4 –The Fund is insured via Group Funded Deductible with Government Capital and Administration Funding**

Assumptions:

- Initial capital funding of \$0.5 million with a target of \$1.0 million by Year 10;
- CAP Program Funding:
  - Capital contribution of \$0.5 million
  - Administration cost share 90% Year 1; 70% Year 2; 50% Year 3; 30% Year 4; 10% Year 5
- Annual premium of \$140,000 per year as in Scenario 3; no change to industry total so as to cover potential government contribution repayment obligation
- Reinsurance as per Scenario 3
- Set-up cost for group funded deductible of \$50,000 in Year 1 per Scenario 3
- Fund growth by value of annual expected loss \$20,000
- HPNAI event as per Scenario 2 in Year 5; \$750,000 in losses but retained loss equals \$100,000

	<b>Initial Capital</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Year 8</b>	<b>Year 9</b>	<b>Year 10</b>	<b>Total After 10 years</b>
<b>Breeders (18.6%)</b>	\$125,000	\$35,340	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	<b>\$394,700</b>
<b>Broilers (35.4%)</b>	\$125,000	\$67,260	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	<b>\$638,300</b>
<b>Layers (19.7%)</b>	\$125,000	\$37,430	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	<b>\$410,650</b>
<b>Turkeys (26.3%)</b>	\$125,000	\$49,970	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	<b>\$506,350</b>
<b>Industry Contribution</b>	<b>\$500,000</b>	<b>\$190,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$1,950,000</b>
<b>Fed/Prov Contribution</b>	<b>\$500,000</b>	<b>\$171,000</b>	<b>\$98,000</b>	<b>\$70,000</b>	<b>\$42,000</b>	<b>\$14,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$895,000</b>
<b>HPNAI Retained Loss</b>						<b>\$100,000</b>						
<b>Ind. Capital (\$ millions)</b>	<b>\$0.500</b>	<b>\$0.691</b>	<b>\$0.799</b>	<b>\$0.889</b>	<b>\$0.951</b>	<b>\$0.865</b>	<b>\$0.885</b>	<b>\$0.905</b>	<b>\$0.925</b>	<b>\$0.945</b>	<b>\$0.965</b>	

Industry capital built to within \$35,000 of the \$1.0 million target at the end of 10 years despite a HPNAI loss.

**Scenario 5 –The Fund is insured via Group Funded Deductible with Government Administration Funding only**

Assumptions:

- Initial capital funding of \$1.0 million;
- CAP Program Funding:
  - Administration cost share 90% Year 1; 70% Year 2; 50% Year 3; 30% Year 4; 10% Year 5
- Annual premium of \$140,000 per year as in Scenario 3
- Reinsurance as per Scenario 3
- Set-up cost for group funded deductible of \$50,000 in Year 1 per Scenario 3
- Fund growth by value of annual expected loss \$20,000
- HPNAI event as per Scenario 2 in Year 5; \$750,000 in losses but retained loss equals \$100,000

	<b>Initial Capital</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Year 8</b>	<b>Year 9</b>	<b>Year 10</b>	<b>Total After 10 years</b>
<b>Breeders (18.6%)</b>	\$250,000	\$3,534	\$7,812	\$13,020	\$18,228	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	\$26,040	<b>\$446,230</b>
<b>Broilers (35.4%)</b>	\$250,000	\$6,726	\$14,868	\$24,780	\$34,692	\$44,604	\$49,560	\$49,560	\$49,560	\$49,560	\$49,560	<b>\$623,470</b>
<b>Layers (19.7%)</b>	\$250,000	\$3,743	\$8,274	\$13,790	\$19,306	\$24,822	\$27,580	\$27,580	\$27,580	\$27,580	\$27,580	<b>\$457,835</b>
<b>Turkeys (26.3%)</b>	\$250,000	\$4,997	\$11,046	\$18,410	\$25,774	\$33,138	\$36,820	\$36,820	\$36,820	\$36,820	\$36,820	<b>\$527,465</b>
<b>Industry Contribution</b>	<b>\$1 million</b>	<b>\$19,000</b>	<b>\$42,000</b>	<b>\$70,000</b>	<b>\$98,000</b>	<b>\$126,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$140,000</b>	<b>\$2,055,000</b>
<b>Fed/Prov Contribution</b>		<b>\$171,000</b>	<b>\$98,000</b>	<b>\$70,000</b>	<b>\$42,000</b>	<b>\$14,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$395,000</b>
<b>HPNAI Retained Loss</b>						<b>\$100,000</b>						
<b>Ind. Capital (\$ millions)</b>	<b>\$1.000</b>	<b>\$1.020</b>	<b>\$1.040</b>	<b>\$1.060</b>	<b>\$1.080</b>	<b>\$1.000</b>	<b>\$1.020</b>	<b>\$1.040</b>	<b>\$1.060</b>	<b>\$1.080</b>	<b>\$1.100</b>	

Industry capital exceeds the \$1.0 million target at the end of 10 years despite a HPNAI loss