## The Collapse of Pigeon King International

# Dealing with the Aftermath of the PKI Bankruptcy in Ontario

# **Summer, 2008**

## **Background**

Pigeon King International (PKI), was incorporated by Mr. Arlan Galbraith on February 19<sup>th</sup> of 2007. Prior to this time, Galbraith also had contracts under his own name and with Benn Contracting Ltd. a company also owned by Galbraith. The venture ultimately involved hundreds of pigeon growers in Ontario, the prairies, and in the United States. Some states (such as Maryland, Iowa, and Washington) banned PKI activity prior to the company's bankruptcy.

Initially, PKI promotional material indicated several potential end markets for the birds: contract growers (i.e. new investors purchasing breeding stock), people interested in marketing the birds themselves and the pigeon racing industry. Later on, PKI then expanded its potential end markets to include squab which are meat pigeons that are marketed at about four weeks of age. It should be noted there were significant size differences between the PKI birds which depending on the type of pigeon would weigh 0.5 to 0.8 lb. (high flyers) to 0.8 to 1.0 lb. (homers) live-weight at five+ months of age compared to regular squab pigeons which would weigh an average of 1.0 lb, dressed-weight at only four weeks of age. PKI's major goal was to build up flocks large enough to supply four meat processing plants (two of which would be located in the United States and two in Canada). Questions were raised by critics and the media, however, as PKI's breeding stock were not bred for racing, nor did the birds reach a large enough body mass to be suitable for the conventional squab industry. Despite these inconsistencies in PKI's business plan, many producers were satisfied as long as they continued to be paid as their contract outlined.

Disclaimer: This discussion paper was commissioned by the Ontario Farm Animal Council on behalf of a number of groups involved with this scenario. The paper is intended to assist stakeholders in the agri-food sector in better understanding how to deal with other emergencies in the future. The authors do make any representations, warranties or conditions, either express or implied, with respect to any of the information contained in the paper. The authors shall not be liable for any claims, damages or losses based on any theory of liability arising out of the use of or reliance upon this information. Permission to reprint in whole or in print is granted with credit to the source.

Galbraith convinced many investors to believe in the future of the PKI pigeon market. PKI recruited new investors through extensive distribution of printed flyers, advertising at farm shows, newspaper and radio ads and word-of-mouth. Marketing materials emphasized how easily the birds could be cared for, as virtually any type of structure could be converted to raise pigeons, including existing unused farm buildings, sheds, and even old school buses. Advertising campaigns also included the future of agriculture; with signs posted on barn doors proudly proclaimed that Pigeon King International was "saving the family farm" by restoring financial security to producers. For example, at one time PKI was offering 18% interest for money loaned to PKI. Mennonite communities in the Kitchener-Waterloo area became involved with PKI, and the program also spread to Mennonite and Amish communities in Pennsylvania and Hutterite colonies in Western Canada.

Producers signed contracts ranging from three to ten years, with Galbraith paying about 10% of the price per breeding pair for each offspring that was produced and subsequently marketed. These breeding pairs typically produce 10-15 offspring per year and could be purchased for anywhere from \$50.00 to \$500.00 per pair. Some of the programs had birds available at a lesser cost and in some cases even for free. When breeding pairs were given to producers for free, the offspring were bought back for about \$8.00 per bird. Initially PKI employees generally picked up offspring from breeders at around four months of age but later on delayed pickups to 5 months of age, thus any mortality incurring between four and five months of age became a loss to the producer rather than PKI.

PKI leased numerous holding barns. These facilities served as warehouse, sorting and distribution centres for birds that had been bought back from breeders. The contractual agreements between Galbraith and the building owners were often verbal. In some cases PKI staff handled all aspects of bird care, while in other instances the landlords (holding barn owners) took on this responsibility.

Media accounts claim that PKI was a pyramid or Ponzi scheme, characterized by abnormally high returns on investment for those involved early on. The "rob-Peter-to-pay-Paul" principle applied, as money from new investors is used to pay off earlier investors. Those who signed contracts more recently are left with high debt and a product that has little or no end market at this time. Options for eventual meat markets for the birds are still being pursued by some. Canadian policing authorities are currently investigating to determine whether or not any crimes were committed.

#### **Timeline of Events**

The first phone call notifying the Ontario Ministry of Agriculture, Food and Rural Affairs, (OMAFRA), that PKI had gone bankrupt was received by the Agricultural Information Contact Centre, (AICC), at 11:30 a.m. on **June 17**<sup>th</sup>. A conference call for industry stakeholders was hosted by the Ontario Farm Animal Council (OFAC) to update industry leaders and discuss possible problems and options for helping on **June 20**<sup>th</sup>. The bankruptcy was not reported by the media until several days later, and it was not until **July 4**<sup>th</sup> that BDO Dunwoody was publicly announced as the bankruptcy trustee.

In the meantime, the AICC fielded many calls from pigeon producers and holding barn operators seeking help and advice on what to do with their flocks. The most desperate of these in many cases were the holding barn operators since they generally had substantially larger flocks and in most instances did not own the birds. Upon the collapse of PKI, the holding barn operators were informed by Galbraith that PKI was "dead in the water." The quote from his letter of notification stated: "You can sell them for whatever price you want to whomever you want. You can auction them off. You can let them free fly and forage in the fields with the wild pigeons. You can gas them and bury them on your farm. The choice is yours."

Many holding barn operators were rapidly running out of feed; some had as little as two or three days worth of feed left by the time they contacted OMAFRA. The first holding barn operator to contact Al Dam (OMAFRA's Provincial Poultry Specialist) called on **June 18**<sup>th</sup>, and stated that he had thousands of birds and very little feed left. The individual was clearly distressed, and wanted to know if there was any possibility of euthanasia assistance as the collapse of PKI had left him in severe debt and he was unable to pay for the services himself. Note: This was the first barn that Egg Farmers of Ontario (EFO) euthanized through whole-barn gassing with liquid carbon dioxide on **June 28**<sup>th</sup>.

The week of **June 22**<sup>nd</sup> was spent gathering information, forming partnerships between critical organizations, developing solutions, and investigating processing options. Important details came to light regarding bird ownership and health status, and a plan for funding feed and euthanasia for holding barn operators was immediately implemented to address animal welfare concerns in holding barns. The Ontario Farm Animal Council (OFAC) activated its Helpline service with funding from OMAFRA to help pay for feed and euthanasia services for animal welfare concerns only.

Ministry of Natural Resources clarified it was not illegal to release the pigeons; however, it was recognized by all involved parties that release was an extremely unsuitable solution, given the sheer numbers and uncertain **health status** of the birds, and potential risks to commercial poultry operations and wildlife. It was agreed that Dr Babak Sanei, OMAFRA's Poultry Veterinarian, should obtain samples from farms in order to address this concern.

On **June 26**<sup>th</sup>, Dr. Sanei's pigeon samples had come back negative for psittacosis and for avian influenza; however, the presence of adenovirus and herpes virus was still undetermined. Dr Sanei confirmed that

there were high mortality rates on the farms he had visited. Upon discussing this observation with producers, it became apparent that most breeders and holding barn operators were not willing to spend additional money medicating the birds for any illness at that point, given the financial losses they were facing. A conference call on **July 4**<sup>th</sup> established that the remainder of the Animal Health Laboratory test results on Dr Sanei's samples had come back positive for E. coli, negative for salmonella, and undetermined with regard to pigeon paramyxovirus.

On June 27<sup>th</sup>, Mark Beaven, former Field Operations Manager at Egg Farmers of Ontario (EFO) confirmed that they were ready to assist with euthanasia efforts with whole barn gassing. The Canadian Food Inspection Agency agreed to supply gassing equipment for EFO to use, but no human resources. Brian's Poultry Services offered the services of its mobile gassing chamber that was built as an experimental unit for humane euthanasia trials with OMAFRA/University of Guelph/CFIA. The need for OMAFRA staff to supervise the euthanasia process was also discussed; it was decided that at least one representative from both OMAFRA and Ontario Society for the Prevention of Cruelty to Animals (OSPCA) should be present at every gassing to ensure humane standards were met at all times. Additionally, the challenges of deadstock disposal were discussed. OMAFRA technical staff was available to assist producers with information on disposal options and Gary Sutcliffe of Walton Equipment rentals was brought onto the team to help with additional technical expertise and logistics.

In total, the team coordinated and assisted with euthanizing approximately 175,000 pigeons (the numbers have not been verified), in 12 of the 14 holding barns in Ontario. The last holding barn was scheduled for euthanasia on **July 22nd**.

#### Resources

When confirmation of PKI's bankruptcy reached OMAFRA staff members, a resource page for producers was drafted almost immediately and posted on OMAFRA's website (http://www.omafra.gov.on.ca/english/new/pigeon.htm). This page continued to be updated throughout the following weeks, as more resources became available to farmers, or as processing plants expressed their disinterest in PKI birds. Key resources and links included:

- Ways to Help Pigeon Producers Manage Feed Costs
- Methods of Euthanasia for Pigeons
- American Veterinary Medical Association Guidelines for Humane Euthanasia
- Disposal Options
- Slaughter and Processing (including the pigeon flock data sheet)
- Business Risk Management
- OMAFRA Agricultural Information Contact Centre
- Farm Debt Mediation
- Distress Centres Ontario
- Options for Farmers in Financial Difficulty
- <u>Diagnosing and Managing Cash Flow Problems</u>

### **Looking for Options**

It had also become apparent that Galbraith had set up a large number of small flocks (ranging from about 100-200 pairs each) within the last few months. Another issue that was brought up was the importance of ensuring the **Farm Debt Mediation** and **Farm Stress lines** were functional and ready to take calls from distressed producers.

A number of interested abattoirs were listed as potential contacts for processing. However, any birds that were sent for processing were required to have a pigeon flock data sheet submitted with them, and all medication withdrawal times had to be strictly adhered to. However, the withdrawal times were a problem in of themselves, because it is not known how long it takes for most drug residues to be eliminated from a pigeon's body.

OMAFRA staff was contacted at the end of June by a representative from the Perth Economic Development Department on behalf of some PKI breeders and holding barn operators. These producers were trying to find a meat market for their homing pigeons and high flyers, and were hoping to process approximately 100 of them in order to calculate costs and product quantities and qualities. Later that same day, an former-PKI employee also contacted the Agricultural Information Contact Centre and stated that it was his belief that these birds would have a significant world market if it weren't for the fact that provincial plants were shutting PKI breeders out. PKI breeders were not being denied access to provincial plants, they were merely being required to pre-schedule slaughter and to complete a pigeon flock data sheet. The carcasses would be "held" by the OMAFRA Meat Hygiene Officers pending test results for medication residues.

Few abattoirs were interested in buying PKI birds, as their small size meant that it actually cost the plant more time and effort to process the birds than the meat was worth; PKI's homing pigeons ranged from 0.8-1.0 lbs live, while the birds known as "high flyers" only weighed between 0.5-0.8 lbs live. Their weight, combined with potential drug residue issues, made processing the birds for human consumption costly, inefficient, and challenging for many.

Meanwhile, other breeders and holding barn operators continued to seek advice from OMAFRA representatives. Producers called in to ask questions about methods for euthanizing their birds, including some actions which were strongly discouraged. It dramatically emphasized the need to provide producers with resources and information for dealing with their flocks in order to avoid animal cruelty scenarios in a highly stressful situation.

#### **Focus on Holding Barns**

It was established that the main effort and limited funding available should be focused on the holding barns. Extremely large numbers of birds (approximately 180,000 pigeons were estimated to be housed in 14 holding barns in Ontario), combined with the fact that the holding barn operators (landlords) did not own the birds prior to PKI's bankruptcy made this an especially stressful situation. The two areas of critical concern were feed (as a short term solution), and humane euthanasia. Producers were responsible for deadstock disposal costs.

OFAC and OSPCA supplied feed to those in stressful situations in holding barns with scheduled euthanasia. It was not intended for those trying to find alternative markets for their birds. W-S Feeds distributed feed for the OSPCA since it had been supplying feed to several holding barns prior to the bankruptcy. This company's help was invaluable in disseminating information to and from producers and holding barn owners. Discussions took place regarding the possibility of using lower cost feed options and/or stretching the feed that was available to producers. With concern of potential residues from medicated feeds, pigeon flock data sheets were created for producers to fill out in the event that the birds were to be processed at an abattoir. OFAC set up a central feed storage facility in Wellington County to facilitate delivery of feed to holding barn operators in emergency situations.

OFAC developed a contract to be signed by the holding barn operators to give OFAC's service providers the authority to humanely euthanize the birds. This contract provided legal protection for holding barn operators and OFAC and ensured feed was only available if they intended to have their birds euthanized. It should be emphasized that this scenario was not intended as a cull program; producers were held responsible for their own birds as much as possible.

Some producers were worried about signing OFAC's euthanasia agreement, as a bankruptcy trustee for PKI had not yet been appointed and the issue of bird ownership was still causing anxiety. Once BDO Dunwoody officially declared bankruptcy on behalf of PKI (July 4<sup>th</sup>), the trustee stated that the birds had no monetary value whatsoever. Based on this announcement, institutions that lent money to PKI producers were refusing to accept offers of the pigeons as collateral. By this time, most holding barn operators had made second contact with the OSPCA asking for help and confirming their willingness to sign the euthanasia agreement.

The most labour and organizationally intensive undertaking of the entire scenario took place from **July 9**<sup>th</sup> **to 12**<sup>th</sup>, when OMAFRA staff and a crew from Brian's Poultry Services Ltd. traveled to Cornwall, Ontario, where they caught and euthanized approximately 13,000 birds. This was a particularly difficult job, as pigeons had to be caught at night, and the converted dairy barn in which they were housed was not conducive to completing the task in a time-efficient manner.

Between the end of June and the third week of July, approximately **175,000 pigeons in 13 holding barns** were euthanized using a combination of whole barn gassing techniques, Brian's Poultry Service Ltd's portable BP MAC cart, and cervical dislocation. **This number is an approximation only, based on previous inventory sheets and owner estimations.** 

#### **Euthanasia and Disposal**

The only euthanasia methods recommended were those approved by the American Veterinary Medical Association and the OSPCA. These included cervical dislocation, exsanguination/decapitation (after stunning), as well as gassing.

Options for gassing birds were whole barn gassing or Brian's Poultry Services Ltd.' Modified Atmosphere Chamber (BP MAC chamber). Barns were visited by OMAFRA staff to determine which method was most appropriate and cost effective.

Whole barn gassing was coordinated by Egg Farmers of Ontario. This process involved sealing the barns and pumping a pre-determined amount of liquid CO<sub>2</sub> (supplied by Air Liquide) based on barn size into the buildings from a tanker truck through an engineered set of manifolds, one owned by EFO and one by CFIA. Oxygen and carbon dioxide concentrations were monitored inside the barns, and lethal concentration (>45% CO<sub>2</sub>) was reached in a matter of minutes on every occasion. After the birds were euthanized, the barns were vented. Once EFO staff cleared the barns for re-entry, the farmers were allowed in to begin the cleanup and disposal of the birds.

Brian's Poultry Services Ltd. was employed if holding barn operators had smaller flocks, or the design of their barns made whole barn gassing an inefficient or impractical option. In these instances either chicken catching crews from Brian's Poultry Service Ltd., the producers themselves, or a pigeon-catching crew organized by a former-PKI contractor would spend the night prior to the scheduled euthanasia catching the birds and loading them into modified pullet carts. The following morning, these carts were loaded into the BP MAC cart and euthanized with a 25% carbon dioxide/75% argon gas mix pumped out of K-cylinders.

Both whole barn gassing and the BP MAC chamber proved to be very effective at dispatching the birds; the decision of which to use was purely based on which was most cost-effective, as OFAC had very limited funding to distribute between feed and euthanasia costs.

Cervical dislocation was the third most commonly chosen option, and instructions on how to perform this correctly were listed on the OMAFRA resource webpage. Crews from various poultry catching services were available to perform this task if the producers did not want to do it themselves.

A number of disposal options were listed on the OMAFRA resource webpage, including detailed instructions and factsheets on deadstock composting, as well as burial guidelines. Atwood Pet Food Supply was listed as a company that was willing to dispose of the pigeons.

The hard cost for these concentrated five weeks of work with twelve barns and 175,000 birds, and the additional management and coordination of the issues associated with it were approximately \$90,000. This includes the hard costs associated with euthanasia (gas, supplies, catching crews) and approximately \$1250 in feed costs. This does not include the value of many people's time and their direct expenses that assisted with the process, including OMAFRA, OSCPA, OFAC and EFO staff.

### **Challenges for Pigeon Owners and Holding Barn Owners**

Very few abattoirs or processors were interested in buying PKI pigeons because of their small size relative to squab pigeons. The abattoirs were willing to process the birds on a custom kill basis at a cost of \$2.50 to \$3.50/bird, the same fee for processing squab, a bird 1.5 to 2 times the weight of PKI birds. An added complication of processing PKI birds for meat was the potential residues in the meat since the pigeons may have been on medicated feeds. This meant that producers were left with a very limited market for meat birds and holding barn operators were left with thousands of birds that no one wanted.

These challenges left many producers with little choice but to euthanize and dispose of birds. The rendering industry would accept dead birds at a cost of approximately \$250/tonne (\$0.10/bird) but only if the plastic leg bands were removed. In most cases, once the birds had been euthanized they were buried or composted on-farm.

There was no formal assistance for euthanasia for breeding bird owners. They were offered advice and options, but there simply was not enough funding to open up a "program" for euthanizing hundreds of barns full of pigeons across Ontario. A few producers contacted OFAC to complain that there was no funding available to them. Throughout this situation, producers were reminded they were responsible for the care of their own birds.

Complicating the partners' efforts to help before birds' welfare became a problem, was the fact that holding barn operators were reluctant to make a decision. Some waited to find out about possible market opportunities. Many feared possible legal repercussions if they euthanized birds of undetermined ownership. In some cases holding barn operators (and likely breeders as well) reduced the amount of feed available to the birds in attempts to control their costs, which resulted in birds losing body condition. As a result, some of the holding barn operators were reluctant having the OSPCA involved as they feared being charged for neglect or cruelty. *Note: By the end of July there were no welfare concerns identified with pigeons in Ontario to the OSPCA or OFAC.* 

## **Challenges for the Working Group Partners**

As is evident from the events outlined in this paper, the entire situation surrounding PKI's demise was fraught with complications and unforeseen challenges. Included among these were difficulties associated with communication between the partners. It was initially difficult to access a list of the holding barn locations. This made it extremely difficult not only to contact the breeders and holding barn operators, but also to grasp the true extent of the problem early on. It was not until a search warrant obtained by OSPCA for PKI's headquarters in Waterloo turned up a list of breeders and holding barn operators that partners were able to truly appreciate the magnitude of the situation. Although the OSPCA had that list, they were legally not able to share the names on it with other partners. It was difficult to reach out to a group of producers who do not "belong to an association" and many who do not use the internet.

Dealing with media calls proved to be an ongoing challenge throughout the scenario. Media representatives began calling the individuals listed on OMAFRA's resource page directly, often on their cell phones. This issue only compounded the challenges that field staff was already facing trying to deal with the high volume of calls from producers. It was simply impossible for field staff to try to deal with media as well. Central media contacts were established at OFAC, OMAFRA and the OSPCA in order to take pressure off of the field staff. The media were looking for specific names, stats or locations for their stories, none of which was publicly available from any of the partners, due to privacy, confidentiality or simply not knowing. Keeping the locations of the barns being gassed confidential, crowd control and the possible need for police support are important considerations in future emergencies.

Equipment reliability did pose the occasional challenge and was a source of uncertainty in some instances. For example, the carbon dioxide manifolds supplied by the CFIA for use in whole barn gassing were unfamiliar to EFO staff, and at the first farm they produced large quantities of dry ice inside the barns. This posed a problem, as the extra time that the dry ice took to dissipate significantly increased the time needed to clear out the barns after gassing. Additionally, in the case of the BP MAC chamber, there was an initial degree of uncertainty about how the unit would perform for euthanizing pigeons. Up until that point, the chamber had only been used to euthanize spent laying hens, ducks and turkeys for humane euthanasia research trials conducted by the University of Guelph and OMAFRA. No one knew at the outset of the PKI scenario how the unit would perform with pigeons, given that they are physiologically different animals than chickens, ducks or turkeys. It was also not known what type of gas would be most efficient for euthanizing the birds; it was soon realized that a mix of 25% CO<sub>2</sub> and 75% argon worked very well and was successful in euthanizing the young pigeons. Many practical lessons with equipment were provided in the field. A combination of creativity and resourcefulness allowed OMAFRA staff to solve problems in the field as they arose. However, it should be noted that in the event of future euthanasia scenarios, backup equipment must be available at all times to prevent any emergencies from developing. Euthanasia is a stressful process under normal circumstances, and the added challenge of potential equipment failures should be avoided at all costs.

Perhaps the most unexpected challenge that staff faced during the scenario was that of fatigue. As previously mentioned, OMAFRA field staff played key roles in the technical and organizational aspects of barn assessment, feed distribution, and euthanasia. Since these individuals have extensive experience in their specific areas of expertise, it was difficult for other staff to fill these roles and thus allow the field staff to take breaks. This translated into the same few people working extremely long hours (often in excess of 16 hours per day, six days a week) with almost no reprieve. By the end of July all staff were exhausted, and a few individuals may have become ill due to the long hours worked, being run down and sub optimal work conditions, including dusty barns.

No one could have foreseen the time required or emotional impacts of working through this issue.

#### **Lessons Learned**

Given that this entire situation was new for everyone involved, it was generally agreed that OMAFRA, OFAC, and OSCPCA, with help from different facets of the poultry and feed industry, were successful in their efforts to aid the holding barn operators. However, there is always significant room for learning and improvement in how the situation was handled.

For example, one of the key points that was emphasized repeatedly was the need for more staff to be trained in the technical and organizational aspects of assessing barns and performing euthanasia. This would allow staff members to get adequate rest throughout the scenario, rather than a few individuals working to the limit of their endurance. However, it became quite clear that the middle of a stressful scenario is not an appropriate time to be training new staff; this adds pressure to an already difficult situation. In the future, staff should be trained to deal with this type of situation before it arises. OFAC did invite staff from various commodity groups to attend on-site to get a field view of the logistics of what happens, which a few people took advantage of.

It was generally agreed that the frequent conference calls that took place were of immense benefit in keeping staff up to date on new developments and decisions. Since most of the conference calls took place in the morning, it helped set everyone on track for what needed to be accomplished on any given day and ensured that all decisions were clarified or modified as necessary.

A recurring issue throughout this entire scenario was that new developments were arising constantly; information that was considered current in the morning on any given day could be rendered obsolete within a few hours. Again, this fact highlighted the importance of frequent meetings and conference calls involving as many individuals as possible in order to keep everyone up to date and to allow the responses of field staff to be as rapid and efficient as possible.

Having a frequently updated resource webpage for producers to refer to was also a successful way of getting information to as many people as possible. It helped ensure that people had access to the options and resources available to them. However, many PKI investors did not have access to the internet. To help bridge this gap in communication, OMAFRA staff ensured that paper copies of the resource pages were made available at the Ontario Livestock Exchange and the St Jacob's Farmers' Market. Additionally, good relations were established early with the OSPCA and W-S Feeds who had many pigeon barn clients. These partnerships proved essential in the efforts to reach and help producers. The personal and stressful nature of this situation also often required several phone calls to discuss, rather than just a factsheet of technical information.

A final point that should be mentioned is that in the event of future scenarios, mental health or grief councilors should be on site to deal with producers and their families. There was a significant amount of emotional stress associated with euthanizing the pigeons; from the viewpoint of the farmers these birds represented an enormous financial investment, and in some cases they were thought of as pets. Having a team member experienced in dealing with the emotional trauma of the producers would help to alleviate pressure from staff members whose responsibility it is to carry out the technical side of the

euthanasia process. In an extended scenario, the partner staff themselves might need counseling or support.

### What if this was a disease scenario?

In a disease scenario, the challenges would be heightened with an even greater demand on time, people and equipment. The euthanasia of the pigeon barns was coordinated so crews and equipment could be driven from farm to farm which would not be feasible with the need for extensive biosecurity protocols if at all. In this scenario there was very little resources dedicated to deadstock disposal, which also would require a tremendous effort to ensure it was done properly. There would also be greater time pressure to move quickly to contain a disease.

Overall, everyone involved agreed there was excellent collaboration between the partners, especially considering that no one had ever faced this kind of a scenario before. Everyone was essentially improvising in terms of problem solving and crisis management. The experience and knowledge gained from it, from both strengths and shortcomings, can certainly be applied to more severe emergencies on a larger scale. Given the challenges previously outlined, credit must be given to all involved parties for working together quickly in a practical manner in a unique and often stressful situation.

## **Working Group Partners**

The successes achieved in assisting breeders and holding barn operators and preventing animal cruelty could not have been realized had it not been for the cooperative efforts of a number of organizations, companies and individuals. The key partners are as follows:

Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) set up committees to address specific issues including: animal management, live animal options, euthanasia & animal welfare, human support, business support, and communications. Senior OMAFRA staff held regular meetings to address and provide direction on issues and concerns identified by staff, committees and partners. Foremost among OMAFRA staff were Al Dam (Provincial Poultry Specialist), Brian Tapscott (Alternative Livestock Specialist), and Gerry Horst (Regional Information Coordinator). These individuals were instrumental in assessing barns for gassing suitability, delivering feed to producers, exploring alternative marketing options, managing emotionally distraught producers, assisting with technical aspects of euthanasia, and gathering information about new developments as they happened. In addition, either Penny Lawlis (Humane Standards Officer) or Mike Draper (Coordinator, Livestock Community Sales Act) were present at every OFAC-funded gassing in order to ensure that the birds were handled and euthanized humanely. The Agricultural Information Contact Centre fielded producer and media calls, critical in relaying up to date information as it was needed.

Ontario Farm Animal Council (OFAC), led by Crystal Mackay, played an essential role in the success of the operations. Accessing and distribution of funding, dealing with breeder/holding barn operator and media inquiries and communications, and coordinating euthanasia and feed delivery were key roles fulfilled by this group. Gary Sutcliffe of Walton Equipment Rentals was brought onto the team by OFAC to provide technical assistance regarding disposal services (burial and composting), as well as taking on a leading role in coordinating bird euthanasia.

Ontario Society for the Prevention of Cruelty to Animals (OSPCA), with staff Darren Grandall and Mary Fera, was a key partner in reaching the holding barn operators and ensuring humane euthanasia was implemented. Communication was initiated with OSPCA almost immediately after news of PKI's bankruptcy was confirmed and OSPCA staff attended every barn assessment and gassing of any birds that was funded by OFAC.

Egg Farmers of Ontario (EFO) played an invaluable role by providing expertise led by Mark Beaven, and equipment it uses for euthanizing spent laying hens. EFO euthanized pigeons housed in facilities that met the structural requirements for whole barn gassing suitability (i.e. ability to seal the structures effectively, appropriate dimensions, ability to vent carbon dioxide after the fact, etc.). EFO generously agreed to donate their staff and use of equipment so OFAC only had to pay for the consumables, (CO2 gas, plastic and insulation batting that was used to seal the barns, etc.). This method was used on six of the fourteen holding barns, euthanizing an estimated 138,000 pigeons.

**Brian's Poultry Services Ltd.** of Mildmay, Ontario, was a key partner when whole barn gassing was deemed unsuitable or not economical. Brian Herman's crew provided the BP MAC gassing chamber and staff, including catching crews in some instances. Brian's Poultry charged for the cost on transport, gas and for the manpower to run the unit. Brian's Poultry assisted in the euthanasia of approximately 34,000 birds in five barns through OFAC funding. Brian's Poultry Services was also commissioned by a number of breeders to euthanize flocks at their own expense.