

1 INTRODUCTION

2 **Q. Please state your name, occupation and business address.**

3 A. My name is Craig Minowa. I work as an Environmental Scientist for the Organic Consumers  
4 Association. My business address is 6771 S. Silver Hill Drive, Finland, Minnesota 55603 and my home  
5 address is 46970 Tenquist Lane in Hinckley, Minnesota 55037.

6 **Q. What are your responsibilities at the Organic Consumers Association?**

7 A. I have worked for the Organic Consumers Association for the past five years as an Environmental  
8 Scientist. My work involves analyzing and interpreting scientific studies and communicating with  
9 consumers, members and the public regarding research findings. I develop policy materials, fact sheets  
10 and reports, including online informational resources. In my work, I have the opportunity to communicate  
11 with individual consumers, farmers and cooperative groceries and to review polling information on  
12 consumers' needs and preferences.

13 **Q. How does your training and experience relate to providing testimony the impacts on  
14 consumers if access to certified organic products is diminished?**

15 A. For the past ten years, I have worked in education and communications with consumers and citizens  
16 regarding environmental and health information. In addition to my work for the Organic Consumers  
17 Association, I have served as Technical Director for the Environmental Association for Great Lakes  
18 Education, as a Marketing and Member Services Manager for the Whole Foods Co-op and as the  
19 Environmental Educator for the St. Paul Neighborhood Energy Consortium. I am familiar with  
20 government and other reported research regarding organic foods and environmental health and familiar  
21 with the perceptions and needs of organic consumers. I received a Bachelor of Science Degree in  
22 Environmental Science from the University of Minnesota in Environmental Science with a focus on water  
23 resources and sustainable agriculture. For five years, I served as an Official Advisor to the United

1 Nations Environmental Programme on issues of indigenous displacement due to water diversion. I also  
2 own and operate a small organic hobby farm.

3 **PURPOSE AND SCOPE**

4 **Q. What is the purpose of your testimony?**

5 A. The proposed route for the Minnesota Pipe Line Company's (MPL) crude oil pipeline would impact  
6 several certified organic farms, including at least one dairy farm and at least one specialty farm growing  
7 vegetables and fruit. In the case of the Gardens of Eagan organic produce farm, the owners of the farm  
8 have determined that routing the MPL crude oil pipeline as the Company proposed would result in the  
9 loss of their farm. If pipeline construction, maintenance or spills from a crude oil pipeline contaminated  
10 an organic farm, organic crops and organic certification could be lost. Although, theoretically, the  
11 Minnesota Pipe Line Company might compensate individual organic farmers for the damage to their  
12 land or the loss of their livelihood, any such compensation would not protect the interests of organic  
13 consumers. The purpose of my testimony is to explain that organic consumers have an interest in  
14 protection of organic farms in addition to the interests that farmers may have in protecting their  
15 livelihood or obtaining compensation for impacts to their land and crops.

16 **Q. What are the interests of organic consumers?**

17 A. There are over 850,000 members of Organic Consumers Association. Our members are interested in  
18 maintaining a supply of healthy, locally-grown organic food. Many of our members support organic  
19 farming to protect their health and the health of their children and families. Some of our members are  
20 particularly sensitive to chemicals, such as pesticides, which are prohibited on organic farms. The  
21 market for organic foods is growing at a rate which far outpaces the rate of growth in overall food sales.  
22 There are some areas of the organic market where supply is already insufficient to meet demand.  
23 Protecting organic farms is necessary to maintain a supply of organic products to meet consumer needs  
24 and preferences.

1 **Q. How is your testimony organized?**

2 A. My testimony is focused on two areas:

- 3 a) Health interests of consumers in preserving organic farms;  
4 b) Market factors supporting protection of organic farms.

5 These issues are discussed below.

6 **Q. What are the perceptions and concerns of consumers regarding health and organic foods?**

7 A. Many members of the Organic Consumers Association perceive that preserving an organic food  
8 supply is necessary to protect themselves and their children from health risks associated with pesticides  
9 and food additives. Individual consumers have also provided anecdotal information about their chemical  
10 sensitivity reactions to conventional produce and dairy products.

11 **Q. Are you aware of research that consumers rely on in selecting organic foods?**

12 A. The Organic Consumers Association web site contains numerous articles and reports that describe  
13 health issues and food safety related to organic foods. I select, analyze and summarize government  
14 reports and literature in the subject areas of interest to our consumers. There is substantial research  
15 that supports consumer perceptions and concerns about the health impacts of chemicals in  
16 conventional foods. A report that I prepared primarily from United States government sources is  
17 available on our web site and summarizes information which is relevant to our consumers' interest in  
18 health. It is attached as Exhibit A.

19 **Q. What information have you drawn from government sources and communicated to  
20 consumers related to consumers' interest in health?**

21 A. Here are some of the key points:

- 22 • According to the United States Food and Drug Administration, half of the produce tested from  
23 grocery stores (1994-2002) contains measurable residues of pesticides. Laboratory tests of  
24 industry-leader baby foods reveal the presence of 16 pesticides, including three carcinogens.

- 1 • According to the United States Department of Health and Human Services, organophosphate  
2 pesticides are now found in the blood of 95 percent of Americans tested. Levels of these pesticides  
3 are twice as high in blood samples of children than in those of adults. Organophosphate pesticides  
4 exposures are linked to hyperactivity, behavior disorders, learning disabilities and developmental  
5 delays in children.
- 6 • Researchers have reported that, in blood samples of children aged 2 to 4, concentrations of  
7 pesticide residues are six times higher in children eating conventionally farmed fruits and  
8 vegetables compared with children eating organic food.
- 9 • The United States Centers for Disease Control reports that one of the main sources of pesticide  
10 exposure for United States children comes from the food they eat.
- 11 • A research team from Emory University in Atlanta, Georgia found that urine samples of children,  
12 ages 3 to 11, who ate only organic foods contained virtually no metabolites of the common  
13 pesticides malathion and chlorpyrifos. However, once the children were placed on a diet of  
14 conventional foods, these pesticide metabolites quickly climbed above detectable levels (up to 263  
15 parts per billion).
- 16 • Currently, over 400 chemicals can be regularly used in conventional farming as biocides to kill  
17 weeds and insects. For example, apples can be sprayed up to 16 times with 36 different pesticides.  
18 These chemicals are prohibited in organic farming.
- 19 • The United State Department of Agriculture prohibits mixing different types of pesticides in disposal  
20 due to the potential of increased toxicity from chemical interactions. On a consumer product level,  
21 pesticide mixtures are common in conventional multiple ingredient products. Sixty-two percent of  
22 food products tested contain a measurable mixture of residues of at least three different pesticides.

23 **Q. In addition to concerns about pesticides, do you know of any other health issues that are**  
24 **important to organic consumers?**

1 A. There are many consumers who perceive that organic foods are healthier than organic foods. One of  
2 the articles I posted on our Organic Consumers Association web site which many consumers have read  
3 summarizes recent research supporting this perception. It is attached as Exhibit B. A 2003 study in the  
4 Journal of Agriculture and Food Chemistry suggests that organic foods and vegetables have  
5 significantly higher levels of cancer-fighting antioxidants than conventional produce. A 2001 literature  
6 review of 400 studies by Britain's Soil Association also reached the conclusion that foods grown  
7 organically had higher levels of minerals and vitamins than conventional foods.

8 **Q. How does this research affect organic consumers?**

9 A. I recognize that some of this research is controversial and there are areas of scientific uncertainty.  
10 But Organic Consumers Association represents many members who state if there is uncertainty as to  
11 health risks from food they would rather act in a precautionary way to prevent harm to themselves and  
12 their children. Eating certified organic foods permits consumers to reduce their potential health risks  
13 from pesticides and other chemical additives.

14 **Q. Are there some consumers who communicate a more direct understanding of their need for**  
15 **organic foods?**

16 A. I have heard from consumers who eat certified organic foods due to their own experiences with  
17 chemical sensitivities. Some of our members have described severe reactions to the chlorine with which  
18 conventional produce is washed. Other consumers have told us that they have reactions to conventional  
19 dairy products containing bovine growth hormones. Some of our members have reported to us that they  
20 have sensitivity reactions to genetically modified crops. Consumers describe a variety of sensitivity  
21 reactions, including hives, rashes and other epidermal symptoms. Organic Consumers Association  
22 cannot judge the medical causation of these reactions. But we can confirm that there are many organic  
23 consumers who believe that their current health as well as the ongoing well-being of their children and  
24 families requires a supply of certified organic food.

1 **Q. Are you aware of concerns about the supply of organic foods?**

2 A. Part of my responsibility with Organic Consumers Association is to identify market trends affecting  
3 organic farms and organic consumers. It is widely recognized that, although organic foods have a small  
4 share of the United States food market, only about 2.5 percent, that market sector is growing at an  
5 astounding rate. The annual growth in organic food sales is 15 to 21 percent, as compared to 2 to 4  
6 percent in the overall food market. This growth in demand has led to some shortages in the supply of  
7 organic foods.

8 **Q. Are there specific organic products where a shortage of supply has been apparent?**

9 A. Perhaps the most widely recognized shortage of organic foods has been in the area of dairy  
10 products. Consumer demand for organic dairy products has eclipsed industry expectations. For at least  
11 a year, organic dairies in the Midwest have had orders that they can't fill and have had to deal with  
12 shortages by limiting company growth as noted in Exhibit C. There have been news reports this summer  
13 of shortages of organic almonds, apricots, blueberries, cashews, hazelnuts, brown rice syrup and oats.  
14 This summer, Whole Foods announced a plan to create a \$10 million loan fund to help ensure a supply  
15 of locally-grown organic foods. This program will be earmarked to help local animal agriculture, such as  
16 grass-fed beef and dairies, but also to support local vegetable farmers.

17 **Q. What are the barriers to expanding supply to meet rising organic consumer demand?**

18 A. Despite all of the growth in organic farming, there is still a shortage of organic farmers in Minnesota  
19 across the board – in dairy, meat, grains and produce. There is a huge learning curve in becoming an  
20 organic farmer in addition to the three-year minimum delay for organic certification. That is why it is so  
21 important to preserve and protect our existing organic farmers who have achieved certification, have  
22 learned how to grow produce and grains and raise livestock using organic practices and have managed  
23 to make a living selling products that consumers demand.

24 **Q. How would you summarize your testimony?**

1 A. My testimony on behalf of Organic Consumers Association is meant to underscore that pipelines  
2 need to be routed, constructed and maintained in a way that does not harm organic farms. Where  
3 possible, organic farms like the Gardens of Eagan certified organic produce farm should be avoided  
4 altogether.

5 If there is a stretch of pipeline where avoidance isn't feasible, every precaution should be taken  
6 to avoid losing, damaging or decertifying organic agricultural lands. Even if a pipeline company could  
7 pay damages to an individual organic farmer, that wouldn't protect the interests of our members, the  
8 hundreds of thousands of organic consumers who prefer organic foods and believe that organic foods  
9 are necessary for their health and the health of their children and families.

10 Consumer preference for organic food is surging, while organic food supplies lag behind, due to  
11 the difficulty and delay in learning organic farming and obtaining organic certification. Neither organic  
12 farmers nor organic consumers can afford loss or damage to organic farms. I conclude that prudent  
13 selection of crude oil pipeline alignments to avoid organic farms and rigorous conditions for pipeline  
14 construction and operation are need to prevent real harm to the interests of organic consumers.

15 **Q. Does this conclude your testimony?**

16 Yes.