

# St. Lawrence County Open Burning Awareness Campaign

Summary  
for  
NYSAEMC  
Conference  
October 13, 2006



# St. Lawrence County Open Burning Awareness Campaign Summary

## Background:

- Planning staff had done a roadside survey of burn barrels in non-village portions of the County in 1993
- 48.2% of residences were observed to have burn barrels
- Staff extrapolated the existence of more than 10,000 burn barrels in the County



# St. Lawrence County Open Burning Awareness Campaign Summary

## Background, cont'd:

- EMC members discussed open burning issues over time
- EMC proposed that the Board of Legislators support state initiatives to ban open burning (2000, 2003)
- EMC participated in Ag Plastics Disposal Project (2000)



Earth Day 2K – Waste Plastic  
Sculpture Competition  
Held at Ogdensburg Transfer Station

# St. Lawrence County Open Burning Awareness Campaign Summary

## Background, cont'd:

- In 2001, BOL asked for a summary of open burning regulations in communities within St. Lawrence Co. and for counties across the state.
  - Planning staff found that within St, Lawrence County, 33% of communities (54% of population) have local regulations
  - Staff found that 7% of counties (15% of population) outside of DEC Regions 1 & 2 had regulations about burning
- In 2002, BOL asked the EMC and County Planning Board to “develop a range of educational awareness alternatives to convey information on the hazards of open burning”

# St. Lawrence County Open Burning Awareness Campaign Summary

## Campaign Elements:

- A joint committee developed a proposal for an educational campaign; proposed cost: \$32, 850.
- Another roadside survey was conducted in 2002:
  - 48.1% of non-village residences were observed to have burn barrels
- Phone surveys measured attitudes about open burning in 2003 and in 2005

**PLEASE-DON'T BURN THIS BAG!**  
BURNING TRASH IS UNHEALTHY AND NOT NEIGHBORLY

**WILD Card**  
Savings Club

St. Lawrence  
County  
Environmental  
Management  
Council

**THERE ARE BETTER ALTERNATIVES:**

**Reduce** - Reduce your consumption of non-biodegradable packaging.

**Reuse** - Wash out containers and plastic bags and use them again. Use refillable containers whenever possible.

**Recycle** - Separate your plastics, glass and cans and paper at home. Redeem your returnable containers at stores. Start a compost pile for biodegradable kitchen wastes.

This message brought to you by the St. Lawrence County Environmental Management Council and the Penn Traffic Company.

# St. Lawrence County Open Burning Awareness Campaign Summary

## Campaign Elements, cont'd:

Four audiences were targeted:

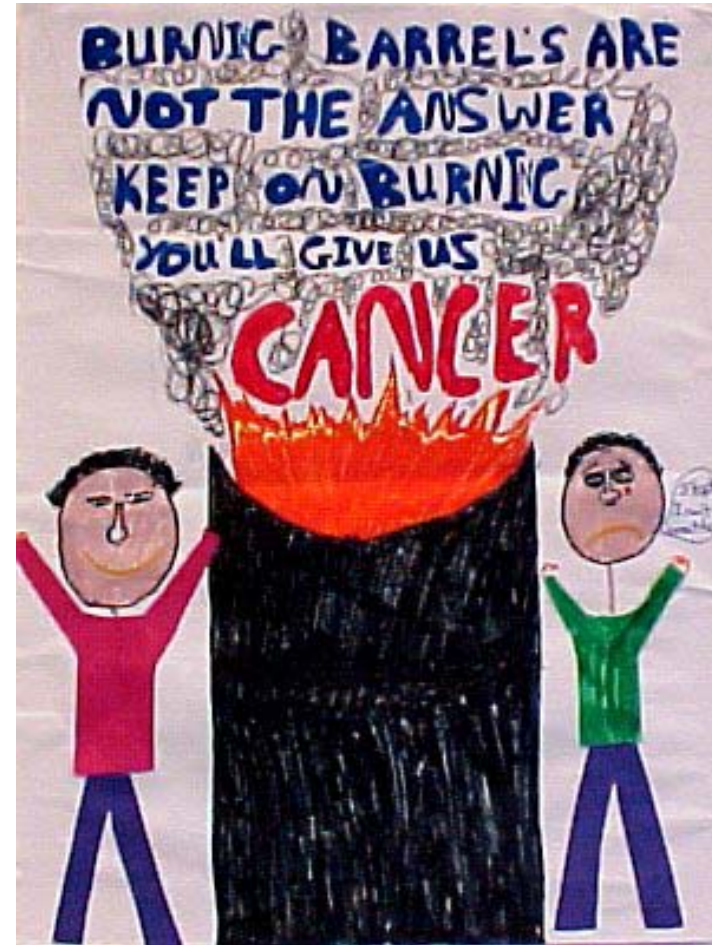
- Children
- Seniors
- Agricultural Community
- Rural residents



# St. Lawrence County Open Burning Awareness Campaign Summary

## Campaign Elements, cont'd:

- For children:
  - Poster Competition in conjunction with Earth Day 2003
  - Conservation Field Days at Indian Creek Nature Center
  - Distribution of materials to Boy Scouts, Girl Scouts, 4-H groups
  - Temporary tattoos distributed at various events
  - Small grant program for teachers



Award-winning poster drawn by  
Drew Winter, Ogdensburg

# St. Lawrence County Open Burning Awareness Campaign Summary

## Campaign Elements, cont'd:

- **For seniors:**
  - Radio ads
  - Paid newspaper ads
  - Letters to the editor
  - Presentations at events
  - Posters distributed at doctors offices

## **A Familiar Sight**


**Did You Know That:**

- ❑ Burning household trash releases dioxins, furans, benzene, styrene, formaldehyde, arsenic, mercury, lead, respirable particulate matter, hydrochloric acid gas, poly-aromatic hydrocarbons and PCBs?
- ❑ Dioxins alone are known to cause cancer, diabetes, cardiovascular disease, endometriosis, wasting, gonadal/lymphoid atrophy, hyperplasia, metaplasia, endocrine disruption, liver toxicity, dermal toxicity, immunotoxicity, neurotoxicity, porphyria, decreased testosterone and developmental effects on thyroid status, immune status, neurobehavior, cognition, dentition and altered sex ratio in humans?
- ❑ Dioxins settle on crops and move through the food chain to humans via consumption of animal fats, including dairy products?
- ❑ Backyard burning of trash is the major quantifiable source of dioxins in the USA?
- ❑ Only a handful of burn barrels can emit the same amount of dioxins as a 200-ton-per-day municipal incinerator?
- ❑ There are approximately 10,000 burn barrels in St. Lawrence County?
- ❑ It is illegal to burn trash in all incorporated St. Lawrence County villages and the City of Ogdensburg — and the towns of Pierrepoint Canton, Potsdam, Madrid, Louisville and Massena also have local laws that prohibit trash burning?

**Pollution from burn barrels is preventable!**

Please reduce, reuse, recycle and dispose of your trash properly. Don't burn trash. Thank you.

A message from the St. Lawrence County Open Burning Awareness Campaign (315) 379-2292.



# St. Lawrence County Open Burning Awareness Campaign Summary

## Campaign Elements, cont'd:

- **For ag community:**

- Staff met with Ag & Farmland Protection Board
- Staff met with Farm Bureau
- Distributed information on dioxins, other hazards

## HOW DIOXINS GET INTO OUR BODIES



# St. Lawrence County Open Burning Awareness Campaign Summary

## Campaign Elements, cont'd:

- **For rural residents:**
  - Billboards
  - Radio ads
  - Open Burning Web site
  - Newspaper ads
  - P&C grocery bags with printed messages
  - Bumper stickers
  - Posters in public places (Town halls, libraries, etc.)



# St. Lawrence County Open Burning Awareness Campaign Summary

## Survey Results:

1. Number of responses:

| Year | # Interviews | %Village/%Town |
|------|--------------|----------------|
| 2003 | 256          | 41.8/43.9      |
| 2005 | 351          | 58.2/56.1      |

Using a test of the difference of proportions for independent samples, the ratio of village residents to non-village residents responding to the survey was not significantly different between 2003 and 2005. Respondents were sixty-two percent (62%) female and thirty-eight percent (38%) male (2005 survey only).



**Backyard Burning  
Is a Serious  
Health Hazard**



# St. Lawrence County Open Burning Awareness Campaign Summary

## Survey Results:

2. How does your household dispose of trash?

| Trash Disposal Method- First Response | 2005      |         | 2003      |         |
|---------------------------------------|-----------|---------|-----------|---------|
|                                       | Frequency | Percent | Frequency | Percent |
| Waste Hauler                          | 243       | 69.2    | 31        | 12.1    |
| Take to Transfer Station              | 89        | 25.4    | 106       | 41.4    |
| Burn on Premises                      | 11        | 3.1     | 2         | 0.8     |
| Bury on Premises                      | 0         | 0.0     | 82        | 32.0    |
| Recycle                               | 6         | 1.7     | 0         | 0.0     |
| Return for Deposit                    | 0         | 0.0     | 0         | 0.0     |
| Compost                               | 2         | 0.6     | 0         | 0.0     |
| Other                                 | 0         | 0.0     | 1         | 0.4     |
| Missing                               | 0         | 0.0     | 34        | 13.3    |
| Total                                 | 351       |         | 256       |         |

| Trash Disposal Method - All Responses | 2005      |         | 2003      |         |
|---------------------------------------|-----------|---------|-----------|---------|
|                                       | Frequency | Percent | Frequency | Percent |
| Total Waste Hauler                    | 247       | 56.1    | 31        | 11.7    |
| Total Take to Transfer Station        | 96        | 21.8    | 112       | 42.3    |
| Total Burn on Premises                | 39        | 8.9     | 2         | 0.8     |
| Total Bury on Premises                | 0         | 0.0     | 85        | 32.1    |
| Total Recycle                         | 47        | 10.7    | 0         | 0.0     |
| Total Return for Deposit              | 3         | 0.7     | 0         | 0.0     |
| Total Compost                         | 5         | 1.1     | 0         | 0.0     |
| Total Other                           | 3         | 0.7     | 1         | 0.4     |
| Total Missing                         | 0         | 0.0     | 34        | 12.8    |
| Grand Total                           | 440       |         | 265       |         |

# St. Lawrence County Open Burning Awareness Campaign Summary

## Survey Results:

4. If you answered Yes to Question 3, where did you hear this? (ANSWER ALL THAT APPLY)

| Source of Knowledge - First Response<br><br>(only asked if yes response to heard burn barrel pollutes) | 2005      |         | 2003      |         |
|--|-----------|---------|-----------|---------|
|  | Frequency | Percent | Frequency | Percent |
| Newspaper  | 82        | 26.1    | 89        | 41.8    |
| Radio  | 37        | 11.8    | 20        | 9.4     |
| TV   | 35        | 11.1    | 20        | 9.4     |
| Friend or Acquaintance   | 109       | 34.7    | 49        | 23.0    |
| Billboard  | 25        | 8.0     | 0         | 0.0     |
| Newspaper Advertisement  | 0         | 0.0     | 0         | 0.0     |
| Newspaper Letter-to-the-Editor   | 0         | 0.0     | 0         | 0.0     |
| P&C Grocery Bag Printed Message  | 0         | 0.0     | 1         | 0.5     |
| Internet   | 1         | 0.3     | 3         | 1.4     |
| From Any School-Age Children You May Have  | 0         | 0.0     | 0         | 0.0     |
| Other  | 19        | 6.1     | 31        | 14.6    |
| No Response  | 6         | 1.9     | 0         | 0.0     |
| Total  | 314       | 100.0   | 213       | 100.1   |



# St. Lawrence County Open Burning Awareness Campaign Summary

## Survey Results:

| Source of Knowledge - All Responses<br><br>(only asked if yes response to heard burn barrel pollutes) | 2005      |         | 2003      |         |
|---|-----------|---------|-----------|---------|
|   | Frequency | Percent | Frequency | Percent |
| Total Newspaper   | 132       | 23.4    | 100       | 27.7    |
| Total Radio   | 92        | 16.3    | 81        | 22.4    |
| Total TV  | 102       | 18.1    | 82        | 22.7    |
| Total Friend or Acquaintance  | 156       | 27.6    | 59        | 16.3    |
| Total Billboard   | 41        | 7.3     | 0         | 0.0     |
| Total Newspaper Advertisement   | 0         | 0.0     | 0         | 0.0     |
| Total Newspaper Letter-to-the-Editor  | 2         | 0.4     | 0         | 0.0     |
| Total P&C Grocery Bag Printed Message   | 0         | 0.0     | 1         | 0.3     |
| Total Internet  | 4         | 0.7     | 3         | 0.8     |
| Total From Any School-Age Children You May Have   | 1         | 0.2     | 0         | 0.0     |
| Total Other   | 29        | 5.1     | 35        | 9.7     |
| Total No Response   | 6         | 1.1     | 0         | 0.0     |
| Grand Total   | 565       | 100.2   | 361       | 99.9    |



# St. Lawrence County Open Burning Awareness Campaign Summary

## Survey Results:

5. Do you think that backyard burning of trash (as in a “burn barrel”) produces dangerous pollutants? In 2003, eighty percent (80%) of those interviewed responded yes; in the 2005 survey, ninety percent (90%) responded yes.

Planning staff work with  
sixth-graders at  
Indian Creek Nature Center  
Conservation Field Day



# St. Lawrence County Open Burning Awareness Campaign Summary

## Survey Results:

6. For each of the following statements (a-j) about trash burning indicate whether you strongly agree, agree, are neutral, disagree or strongly disagree. Legend: (1) strongly agree, (2) agree, (3)are neutral, (4)disagree, (5)strongly disagree

| Statement  | 2003 | 2005  |
|--|------|-------|
| The amount of pollution from a burn barrel is not significant.       | 3.39 | 3.47  |
| There is no problem if one only burns paper.                         | 2.79 | 2.72  |
| Burning plastics is a problem.                                       | 1.64 | 1.71  |
| The left-over ash is toxic.  | 2.27 | 2.49* |
| Any pollution will be dispersed in the air before it reaches people. | 3.32 | 3.22  |
| Using a burn barrel is not a problem if it is covered (by a screen). | 3.45 | 3.58* |
| People burn because waste disposal costs too much.                   | 2.25 | 2.29  |
| People burn because it is convenient.                                | 2.05 | 2.19* |
| People burn because it is a habit.                                   | 2.44 | 2.39  |
| People burn because they believe it is a basic right.                | 2.41 | 2.36  |

\* Significant difference between 2003 and 2005 at 0.05 confidence level



Award-winning poster  
by Bridget Barr,  
Ogdensburg

# St. Lawrence County Open Burning Awareness Campaign Summary

## Survey Results:

7. Do you think the distance to neighbors should be a factor in whether someone should burn trash? This question was only asked in the 2005 survey. Seventy-two percent (72%) of the responses were yes.
8. Do you know where you can get more information about the health impacts of burn barrels? In 2003, 39 percent of those interviewed said yes. In 2005, 36 percent said yes. The difference was not statistically significant at the 0.05 level using Chi-Square.



# St. Lawrence County Open Burning Awareness Campaign Summary

## Conclusions:

The Open Burning Hazards Awareness Campaign appears to have been only modestly effective in informing the public. Among the statistically-significant results:

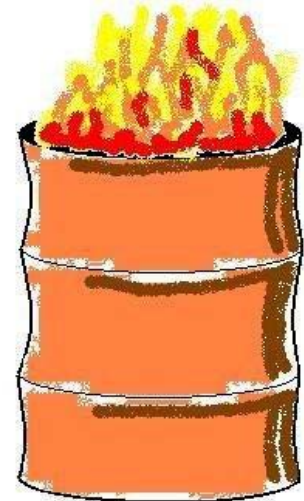
- In 2003, eighty percent (80%) of those interviewed felt that backyard burning produces dangerous pollutants; in the 2005 survey, ninety percent (90%) felt so. The good news is that most people are aware that burning is a problem, but the question remains: Will they change their behavior?
- There were small changes in some attitudes about burning, but they were not dramatic or statistically significant. The statements; however, “The left-over ash is toxic”, “Using a burn barrel is not a problem if it is covered (by a screen)” and “People burn because it is convenient” each had responses that were significantly different between the two surveys.
- It would appear that more people are using waste hauler services and fewer are taking their trash to the transfer stations directly. There seems to be an increase in open burning, assuming that respondents have been truthful about their habits in both the 2003 and 2005 surveys.



# St. Lawrence County Open Burning Awareness Campaign Summary

## Recommendations:

- Education and awareness on the hazards of open burning has probably reached most of the populace. Further educational effort will probably only reach a small additional increment. Nevertheless, keeping the issue alive via various media may serve to remind people that open burning remains a serious matter.
- The roadside open burning “windshield” survey should be repeated in 2006 to see if there may have been a decline in the number of actual burning devices.
- In addition to the traditional sources of information, any future public awareness issue should consider using television as one of the means of transmitting information. This campaign did not use television due to the high cost of production and demand on County staff resources. Television and radio (non-print media) can reach people who do not have reading skills. Perhaps television spots could be produced by DEC/DOH.



# St. Lawrence County Open Burning Awareness Campaign Summary

## Recommendations:

- The campaign did not appear to markedly change the level of specific knowledge in those people surveyed. For example, approximately the same percentage of people agreed or strongly agreed that burning plastics is a problem in both the 2003 and 2005 surveys. Fortunately, in this case, over 92 percent knew it *was* a problem. In the future printed advertising could probably be less information-dense and simply focus on a single message.
- Most people agreed that open burning happens for the following reasons:
  - It is convenient
  - It is a habit
  - It is a basic right
  - It costs too much to pay for waste disposal

It is clear that burning will continue as long as these attitudes persist and people feel that their waste disposal options are limited. One way to mitigate against these attitudes is to provide convenient intermediate transfer station facilities in each town. A model for this might be the Town of Colton's transfer facility.

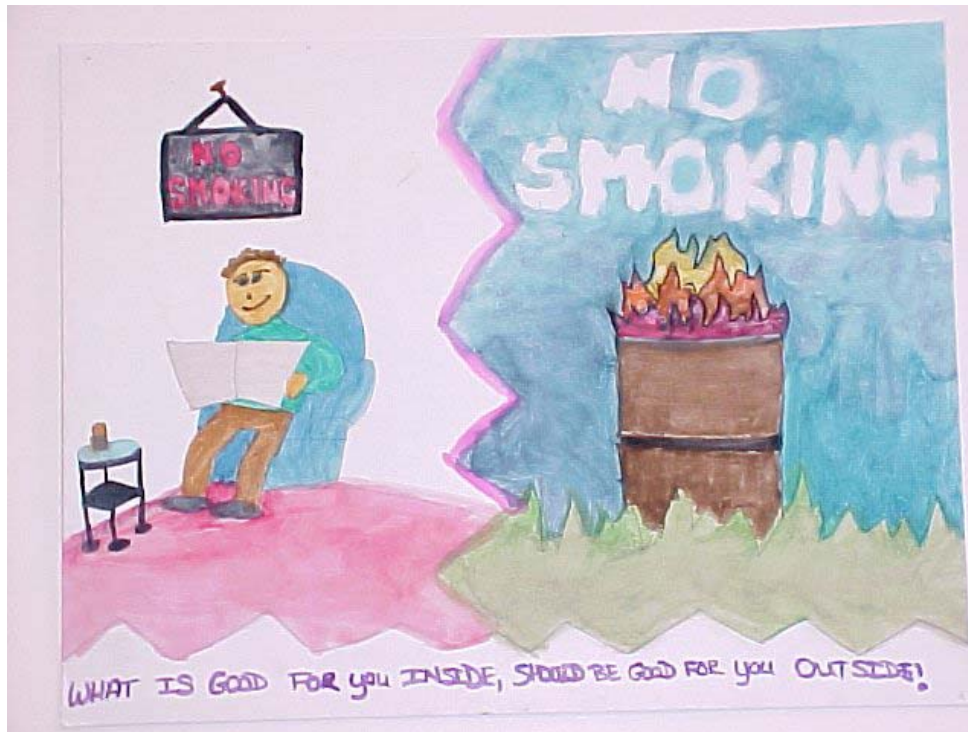


Award-winning poster  
by Chad Richardson,  
Ogdensburg

# St. Lawrence County Open Burning Awareness Campaign Summary

## Recommendations:

- As mentioned in Attachment 1, some towns have local laws/ordinances that attempt to control open burning. Additional towns should be assisted in passing their own local laws that control open burning. A few towns mentioned that they were considering local laws to control open burning but no towns have actually passed such laws as of this point in time.
- The County should push for State action to prohibit open burning of trash while providing for necessary land-clearing and crop residue burns, etc.



Award-winning  
poster by Nicole  
Gilbert,  
Ogdensburg

# St. Lawrence County Open Burning Awareness Campaign Summary

**For further information, please contact:**

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