

# Woodstove Changeout Program

Passamaquoddy Tribe at Pleasant Point

Sipayik Environmental Dept.

Tribal Air Quality Program

# Project Description

- Changeout 21 older woodstoves
- Replace with new EPA-certified stoves
- Work with tribal housing authority
- LiHEAP to provide technical assistance
- Clients were selected by LiHEAP

# Project Details

- Project Timeline: 10/01/2010 – 09/30/2011
- Total EPA Project Funding: \$31, 500
- Special funding and was a separate project grant award
- Woodstoves purchased from Passamaquoddy Development and Supply Co.
- Tribal Housing provided \$9,800 for installations and other items not budgeted in the grant

# EPA-Certified Wood Stoves

- 7 Baltic Wood Stove Purchased
  - 75% Optimum Efficiency
  - Rated for 2,100 ft<sup>2</sup> heating space
  - 85,000 BTU
- 18 Summers Heat Model 50-SNC30
  - Rated for 2,200 ft<sup>2</sup>
  - 75,000 BTU

# Stove Quotes Included

- Baltic
  - 36 x 52 Backer Board & Pipes
  - Fan/heat circulator
- Summers
  - 32 x 42 Backer Board & Pipes
  - Fan/heat circulator

# Housing Authority Cost Sharing

- Were able to put in three additional woodstoves (type was not disclosed)
- Stove flooring if needed
- Labor to remove/install woodstoves
- Chimney retrofits where necessary
- Provided truck/trailer to haul the supplies
- Worked with PDSC in coordinating activities

# Criteria for Client Selection

- Working woodstove
- Chimney must meet code
- Wood is primary heat source
- Replaced woodstove has to be removed and disposed of
- Indoor air quality assessment if requested

# Results

- Able to replace a total of 28 woodstoves
- Most homes had newer certified woodstoves
- Two declined because they did not want to let go of their older woodstoves
- Just one complaint – owner did not read the manual
- Some problems with using wood that was not seasoned

# Air Quality Results

- Problems with ash removal
  - PM 10 levels rose
  - Took about 2 hrs for dust levels to decrease
  - Had to open doors and windows
- High mold count with a home
  - Wood was stored inside the house
- Improper use of damper and door left opened
  - CO alarm went off

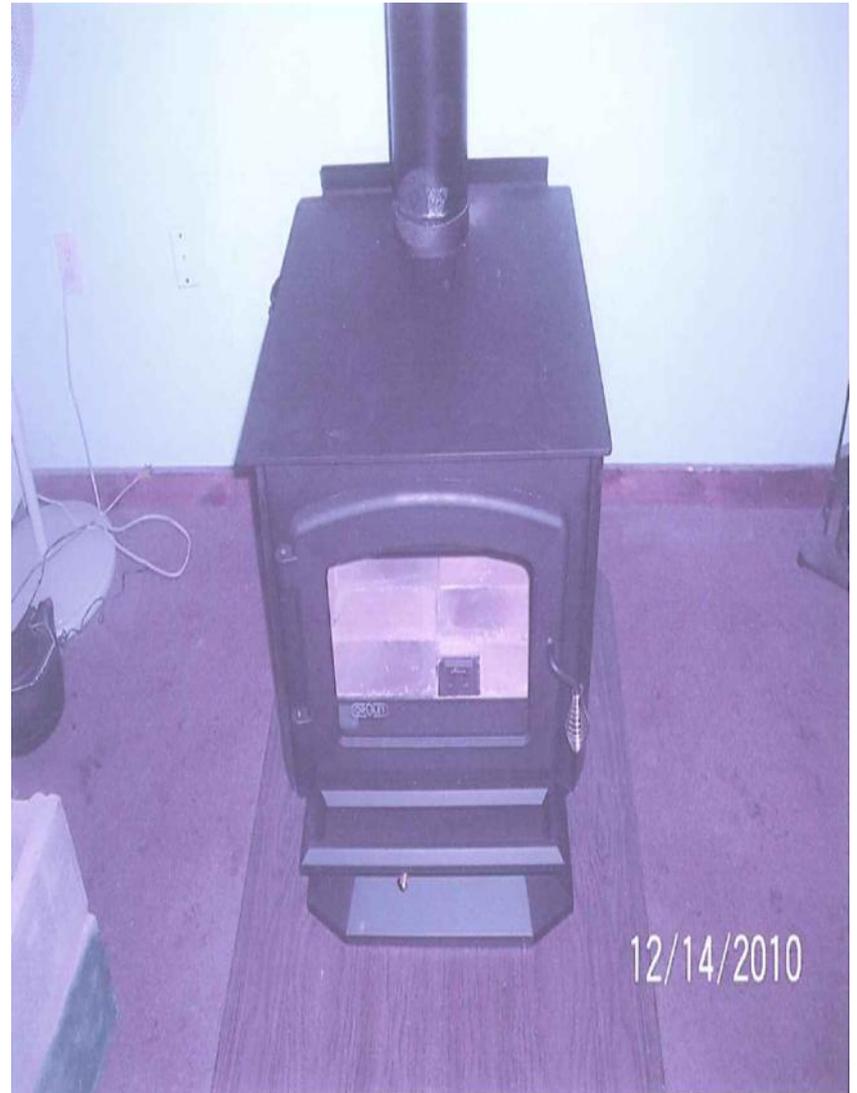
# Lessons Learned

- Homeowners that did not have woodstoves wanted one
- Had to stress the program was not about encouraging woodstove use
- Rather program was to take out older woodstoves that would put more particulates out on the local airshed
- We had a steady climb in woodstove users because of high cost of using fuel oil
- A few years ago, we only had 13 tribal members using wood to heat their home
- Due to rising fuel costs, we have over 50 homes now using wood to offset costs
- Fuel oil can't compete with wood because it is subsidized and tribal members can harvest their own on tribal lands

# Conclusion

- Homeowners reported they did not use all the wood they received from LiHEAP
- Slow and evenly burning stove did require homeowners to get up at night to feed the stove
- Fan circulating modules were not used because of the noise and utility cost
- 100% of clients satisfied – No one complained to council or the chief

# Before/After



# Before/After



# Before/After



# Before/After



# Contact Information

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