WaterWise 2008
Program Summary Report
City of Lawrence WaterWise™ Program

Program Summary Report
2007-2008

Submitted By:
Resource Action Programs®

June 2008
Table of Contents

Executive Summary .................................................................................................................. 1
Program Overview .................................................................................................................. 3
Program Materials .................................................................................................................. 4
Program Implementation ......................................................................................................... 5
Program Impact ...................................................................................................................... 7
  Home Audit .......................................................................................................................... 7
  Pre/Post Survey ................................................................................................................... 8
  Resource Savings Summary ................................................................................................. 9
  Participant Response .......................................................................................................... 10
  Program Enhancements ...................................................................................................... 14
Appendices .............................................................................................................................. 15
  A. Resource Savings Estimates ........................................................................................... 16
  B. Household Report Card Data ......................................................................................... 19
  C. Teacher Evaluation Data ............................................................................................... 23
  D. Participant Letters ......................................................................................................... 24
This report summarizes the City of Lawrence WaterWise Program. The Program is designed to facilitate installation of resource efficient technologies in homes and build knowledge of environmental issues yielding a variety of measurable energy and water savings results using the best messengers - students. The Program was funded by City of Lawrence and implemented in their service territory. The recipients of the 2007-2008 Program were fourth graders and their families at Broken Arrow Elementary, Deerfield Elementary, Lawrence Public Schools/ESDC, Pinckney Elementary, Prairie Park Elementary, Schwegler Elementary, Sunflower Elementary, Wakarusa Valley Elementary and Woodlawn Elementary. The secret to the Program is combining a turnkey set of classroom activities with hands on home projects to install high efficiency devices and introduce resource conscious behavior to students and their families. Program Materials were distributed to three hundred eighty (380) fourth grade students and their families. An overview of the results from the Program appears below, with greater detail in the attached report.

Knowledge Gained: Identical surveys (tests) were taken by students prior to the Program, and again upon its completion to measure knowledge gained. Scores and subject knowledge improved from 59% to 80%.

“In my opinion, the thing the students like best about the materials / program was working with their parents to complete the activities.”

Kristin Hase, Teacher
Deerfield Elementary

“(The Program) made us all aware of different ways to save water & the amount of water we actually waste.”

Brandy Fitzpatrick, Parent
Pinckney Elementary

Audit Information Obtained: Household audits (customer surveys) were performed by students and their families as part of the program activities. Important customer information was collected to better understand trends and usage. Some highlights include:

• 66% rated the WaterWise® Program as good or great.
• 75% reported they changed the way they use water.
• 76% reported they worked with their family on the Program.

(A summary of responses can be found in Appendix B)
**Measures Installed:** Students completed retrofit activities as part of the Program, and reported the measures they installed in their own homes. Some highlights include:

- **44%** reported they installed the bathroom aerator.
- **50%** reported they installed the new high efficiency showerhead.

(A summary of responses can be found in Appendix B)

**Resource Savings Results:** As a part of the Program and while working with parents, students measured the current devices in their homes, installed high efficiency devices and measured to calculate savings that they generated. Savings from these activities will continue for many years to come. The table below shows the projected savings from the Program, based upon information gathered by the students.

**Projected Resource Savings**

(A list of assumptions and formulas used for these calculations can be found in Appendix A)

- **Projected Annual Savings**
  - 3,510,844 gallons of water saved
  - 14,330 therms of gas saved
  - 116,964 kWh electricity saved
  - 3,510,844 gallons wastewater saved

- **Projected Average Annual Savings per Home**
  - 9,239 gallons of water saved
  - 38 therms of gas saved
  - 308 kWh electricity saved
  - 9,239 gallons wastewater saved

- **Projected Ten Year Savings**
  - 31,424,219 gallons of water saved
  - 128,264 therms of gas saved
  - 1,046,902 kWh electricity saved
  - 31,424,219 gallons wastewater saved

- **Projected Average Ten Year Savings per Home**
  - 82,695 gallons of water saved
  - 338 therms of gas saved
  - 2,755 kWh electricity saved
  - 82,695 gallons wastewater saved

(A list of assumptions and formulas used for these calculations can be found in Appendix A)

**Participant Satisfaction:** A significant piece of a successful Program is participant satisfaction. Program participants must support program activities and be provided with a forum to express their opinions. Therefore, as part of the Program students, teachers and parents are asked to evaluate the Program. Some highlights include:

- **100%** of participating teachers indicated they would conduct the Program again given the opportunity.
- **100%** of participating teachers indicated that student’s parents supported the Program.

(A summary of responses can be found in Appendix C)
For more than fourteen years, Resource Action Programs (RAP) has designed and implemented resource efficiency and education programs – changing household energy and water use while delivering significant, measurable resource savings for program sponsors. All RAP programs feature a proven blend of innovative education, comprehensive implementation services, and hands-on activities to put new knowledge to work in the program participants’ homes.

RAP Programs serve more than 150,000 households each year through elementary school, middle school and adult programs. Our forty person staff manages the implementation process and program oversight for nearly 200 individual programs annually. Recognized nationally as a leader in water and energy efficiency education and program design, RAP has a strong reputation for providing an unusual level of client service to its sponsors as part of a wide range of conservation and resource efficiency solutions for municipalities, utilities, states, community agencies and corporations.

All aspects of program design and implementation is completed from the Program Center in Modesto, California. This includes graphic and web design, print production, warehousing and distribution, kit production, marketing, program tracking, data tabulation and reporting.

The school-based WaterWise Program is fully implemented and designed to generate immediate and long-term savings by incorporating interactive “real world” practices at home. The Program staff identifies and enrolls students and teachers within the designated service territory. Enrolled participants receive educational materials designed to build participant knowledge and demonstrate simple ways to save, by not only changing habits, but also changing devices. Materials meet state and national educational standards, which allow the Program to easily fit into teachers’ existing schedules and requirements.

The Program begins with classroom discussions teaching the importance of using water and energy efficiently, followed by hands-on, creative problem solving. Next, participants take home a Resource Action Kit that contains high efficiency devices. With the help of their parents, they install the devices in their home and complete a home audit report. By taking new technologies home, installing and monitoring them, students are able to effectively measure the results of what they learned resulting in the community actually saving water, energy, and money! The WaterWise staff tabulates all responses, including home audits, teacher responses, student input, parent responses and generates a Program Summary Report.
Each participant receives a Resource Action Kit containing efficiency technologies for their home and materials to perform the hands-on activities. Program materials include:

**Each student/teacher receives:**
- Student Guide
- Home Water Use Workbook
- Parent Introduction Letter
- Home Audit Form
- Pre & Post Surveys
- Certificate of Achievement
- Computer Lab Activity
- Resource Action Kit containing:
  - High Efficiency Showerhead
  - Kitchen Aerator
  - Bathroom Aerator
  - Drip / Rain Gauge
  - Water Temperature Thermometer
  - Toilet Leak Detector Tablets
  - Flow Rate Test Bag
  - Water Conservation Tips Wheel
  - Mini Tape Measure
  - Parent Comment Card
- Interactive Program Website
- Toll-Free Telephone Support

**Each teacher/classroom receives:**
- WaterWise Teacher Guide
- Step-by-Step Program Checklist
- Lesson Plans
- Program Evaluation
- WaterWise Program Video (VHS & DVD)
- Supplemental Activities
- State Education Standard Correlation Chart
- Pre/Post Survey Answer Keys
- Water Poster for classroom
- Self Addressed Postage Paid Envelope
The WaterWise Program followed the subsequent implementation schedule:

1. Identification of State Education Standards & Benchmarks
2. Curriculum Development
3. Curriculum Correlation to State Education Standards & Benchmarks
4. Incentive Program Development
5. Teacher / School Identification
6. Program Introduction to Teachers
7. Teachers Enrolled in the Program
8. Implementation Dates Scheduled with Teachers
9. Program Material Delivery
10. Delivery Confirmation
11. Periodic Contact to Ensure Implementation and Teacher Satisfaction
12. Program Completion Incentive Offered
13. Results Collection
14. Program Completion Incentive Delivered to Qualifying Participants
15. Thank-you Cards Sent to Participating Teachers
16. Data Analysis
17. Program Summary Report

Participating teachers may implement the Program to coincide with their lesson plans. The table on the next page is a comprehensive list of fourth grade classrooms that participated during the 2007-2008 school year.
<table>
<thead>
<tr>
<th>School</th>
<th>Teacher</th>
<th>Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broken Arrow Elementary</td>
<td>Ginny Turvey</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Deerfield Elementary</td>
<td>Kristin Hase</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Deerfield Elementary</td>
<td>Melissa Clover</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Deerfield Elementary</td>
<td>Stacy Roman</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Lawrence Public Schools/ESDC</td>
<td>Marsha Morrissey</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Pinckney Elementary</td>
<td>Cari Davis</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Prairie Park Elementary</td>
<td>Lori Greenfield</td>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>Schwegler Elementary</td>
<td>Deborah Norwood</td>
<td>2</td>
<td>51</td>
</tr>
<tr>
<td>Sunflower Elementary</td>
<td>Liz Callaway</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td>Wakarusa Valley Elementary</td>
<td>Kim Burke</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Wakarusa Valley Elementary</td>
<td>Krista Robertson</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Woodlawn Elementary</td>
<td>Jen Walters</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>13</strong></td>
<td><strong>367</strong></td>
</tr>
<tr>
<td><strong>Total Participants</strong></td>
<td></td>
<td></td>
<td><strong>380</strong></td>
</tr>
</tbody>
</table>
The City of Lawrence WaterWise Program has had a significant impact within the community. As illustrated below, the Program successfully educated a portion of the community about water and energy efficiency while installing resource efficient technologies in homes and collecting data to better understand future trends and usage. The following results were compiled:

A. Home Audit

Upon completion of the Program, participating families are asked to complete a Home Audit to assess their resource use, verify product installation, provide demographic information and measure participation rates. A few samples of questions asked are below while a complete summary of all responses is included in the appendices.

Did you install the high efficiency showerhead?  Yes - 50%
Did you work with your family on this Program? Yes - 76%
Did you change the way you use water? Yes - 75%
B. Pre/Post Survey

Students were asked to complete a 10 question survey before the Program was introduced and then again after it was completed to determine the learning impact and the knowledge gained through the Program. The average student answered 5.9 questions correctly prior to being involved in the Program and then improved to answer 8.0 questions correctly following participation.

**Scores improved from 59% to 80%**
C. Resource Savings Summary

As part of the program and working with parents or guardians, students installed resource efficiency technologies in their homes. They also measured the pre-existing equipment to calculate savings that they generated. Using the family habits collected from the customer survey information as the basis for this calculation, three hundred eighty (380) City of Lawrence WaterWise Program households are expected to save the following resource totals. Savings from these activities will continue for many years to come.

<table>
<thead>
<tr>
<th>Projected Resource Savings</th>
<th>Total Number of Participants: 380</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual</td>
</tr>
<tr>
<td>Reduction from showerhead retrofit:</td>
<td>2,774,000 27,740,000 gallons</td>
</tr>
<tr>
<td>Product Life: 10 years</td>
<td>92,416 924,161 kWh</td>
</tr>
<tr>
<td>Reduction from kitchen aerator retrofit:</td>
<td>355,419 1,777,094 gallons</td>
</tr>
<tr>
<td>Product Life: 5 years</td>
<td>11,841 59,204 kWh</td>
</tr>
<tr>
<td>Reduction from bathroom aerator retrofit:</td>
<td>381,425 1,907,125 gallons</td>
</tr>
<tr>
<td>Product Life: 5 years</td>
<td>12,707 63,536 kWh</td>
</tr>
<tr>
<td>TOTAL PROGRAM SAVINGS:</td>
<td>3,510,844 31,424,219 gallons</td>
</tr>
<tr>
<td></td>
<td>116,964 1,046,902 kWh</td>
</tr>
<tr>
<td>TOTAL PROGRAM SAVINGS PER HOUSEHOLD:</td>
<td>9,239 82,695 gallons</td>
</tr>
<tr>
<td></td>
<td>308 2,755 kWh</td>
</tr>
</tbody>
</table>
D. Participant Response
Program improvements are based on the feedback from participants. Therefore, as part of the program Students, Teachers and Parents are asked to evaluate portions of the programming. Each response is reviewed for pertinent information to both the Program and the Program Sponsor. The following is a sample of feedback collected during the Program.

Teacher Response
(A summary of responses can be found in Appendix C)

100% of participating teachers indicated they would conduct the Program again given the opportunity.

100% of participating teachers indicated that student’s parents supported the Program.

“In my opinion, the things students liked best about the program were…”

“...working with their parents to complete the activities.”
Kristin Hase, Deerfield Elementary

“...how it ties directly into our curriculum.”
Melissa Clover, Deerfield Elementary

“...the hands on activities that they were able to do at home.”
Martha Wenzel, Sunflower Elementary

“...the rain gauge, toilet tablets & showerhead.”
Liz Callaway, Sunflower Elementary

“...getting the box of materials. They liked the activities provided. They also liked the bracelets, certificates & video. I liked the new take home book – it was much easier to transfer information to scantron forms than to try to have students take those home and return them.”
Krista Robertson, Wakarusa Elementary

“The students love getting the kits!”
Cari Davis, Pinckney Elementary

“...the hands on activities!”
Lori Greenfield, Prairie Park Elementary
Teacher Response (cont.)
(A summary of responses can be found in Appendix C)

“In the future, one thing I would change would be…”

“…to have these in August. We start our water unit the 1st of September!”
Kristin Hase, Deerfield Elementary

“I liked the changes from last year to this year. I can’t think of anything to change.”
Krista Robertson, Wakarusa Elementary

“…having the amount of parental support be minimized or an alternative for students.”
Cari Davis, Pinckney Elementary

Parent Response

As a parent which aspect of the Program did you like best?

“We had fun installing the faucets and the rain gauge.”
Leslie O’Neil, Deerfield Elementary

“Awareness of water conservation. The practical way of testing and seeing results. Immediate changes could be made.”
Suzie Craig, Deerfield Elementary

“That my son learns about water usage & conservation. He gets the idea that his actions can help make a difference - save water.”
Jessica Strange, Prairie Park Elementary

“It made us all aware of different ways to save water & the amount of water we actually waste.”
Brandy Fitzpatrick, Pinckney Elementary

“How excited and interested my daughter was to try the water conserving devices.”
Bryan Young, Wakarusa Valley Elementary

“Where you got to do experiments! Also, I thought it was very educational!”
Ay McCurdy, Woodlawn Elementary
Parent Response (cont.)

As a parent which aspect of the Program did you like best?

“Working together as a team & we all learned how we can save water in our home.”
Anthony & Katie Harvey, Prairie Park Elementary

“Working with my daughter to better the household together.”
Amy & Mike Davidson, Prairie Park Elementary

“The education element about how important it is to use less water. *My child says ‘the free stuff!”
Charles Hunt, Prairie Park Elementary

“Easy to install.”
Monica Williams, Prairie Park Elementary

“To see if we were doing right with our water!”
Charles Wiggins, Prairie Park Elementary

“Learning about conserving water.”
Danny & Dawn Trent, Deerfield Elementary

What comments would you like to express to your child’s Program sponsor?

“Thank-You”
Jessica Strange, Prairie Park Elementary

“This seems like a great way to get kids interested in conservation and make them aware of their responsibilities.”
Brandy Fitzpatrick, Pinckney Elementary

“Keep doing it.”
Charles Wiggins, Prairie Elementary

“Thank you for doing this.”
Ay McCurdy, Woodlawn Elementary

“Thank you!”
Anthony & Katie Harvey, Prairie Park Elementary

“Thank you for making this program available to our kids.”
Charles Hunt, Prairie Park Elementary
Parent Response (cont.)

What comments would you like to express to your child’s Program sponsor?

“Great program. Shower head needed (to be) changed to save water.”
Monica Williams, Prairie Park Elementary

“Thanks!”
Bryan Young, Wakarusa Valley Elementary

“Thank You!”
Amy & Mike Davidson, Prairie Park Elementary
E. Program Enhancements

In addition to increasing resource awareness and efficiency, the Program strengthens bonds between sponsors and their communities. The Program has been designed from start to finish with this in mind. Some of the steps taken to ensure our sponsors receive the greatest possible exposure are as follows:

**Kit Branding:** Each Resource Action Kit was labeled with the sponsor’s logo.

**Press Releases:** Press releases were offered highlighting program accomplishments.

**Thank-you Letters:** Throughout the program we received thank-you letters from teachers, students and parents. Select samples of letters are contained in Appendix D. Original copies of all the letters received will be sent to the program sponsor.
Appendix Contents

A. Resource Savings Estimates ................................................................. 16
B. Home Audit Data .................................................................................. 19
C. Teacher Evaluation Data ...................................................................... 23
D. Participant Letters ................................................................................ 24
Estimated Savings from Showerhead Retrofit

Average household size: 2.50 people\(^3\)
Average length of use: 8.00 minutes\(^4\)
Product life: 10.00 years\(^1\)

Average showerhead has a flow rate of: 4.00 gallons per minute\(^4\)
Retrofit showerhead has flow rate of: 2.00 gallons per minute
Flow reduction: 2.00 gallons per minute

**Water:**
Average showerhead requires: 80.00 gallons
Retrofit showerhead requires: 40.00 gallons
Showerhead produces an annual reduction of: 14,600.00 gallons
Showerhead produces a lifetime reduction of: 146,000 gallons

**Gas:**
Average showerhead requires: 0.47 therms
Retrofit showerhead requires: 0.23 therms
% of water heated by gas: 70%
Showerhead produces an annual reduction of: 60 therms
Showerhead produces a lifetime reduction of: 596 therms

**Electricity:**
Average showerhead requires: 8.88 kWh
Retrofit showerhead requires: 4.44 kWh
% of water heated by electricity: 30%
Showerhead produces an annual reduction of: 486 kWh
Showerhead produces a lifetime reduction of: 4,864 kWh

Number of participants: 380
Installation / participation rate of: 50%

Total reduction from showerhead retrofit:

<table>
<thead>
<tr>
<th></th>
<th>Annual</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,774,000 gallons</td>
<td>27,740,000 gallons</td>
</tr>
<tr>
<td></td>
<td>11,323 therms</td>
<td>113,226 therms</td>
</tr>
<tr>
<td></td>
<td>92,416 kWh</td>
<td>924,161 kWh</td>
</tr>
</tbody>
</table>

---

1. Product life taken from manufacturer.
Estimated Savings from Kitchen Aerator Retrofit

Average household size: 2.50 people
Average length of use: 2.50 minutes
Product life: 5.00 years

Average kitchen aerator has a flow rate of: 2.50 gallons per minute
Retrofit kitchen aerator has flow rate of: 1.50 gallons per minute
Flow reduction: 1.00 gallons per minute

Water:
Average kitchen aerator requires: 15.63 gallons
Retrofit kitchen aerator requires: 9.38 gallons
Retrofit kitchen aerator produces an annual reduction of: 2,281 gallons
Retrofit kitchen aerator produces a lifetime reduction of: 11,406 gallons

Gas:
Average kitchen aerator requires: 0.09 therms
Retrofit kitchen aerator requires: 0.05 therms
% of water heated by gas: 70%
Retrofit kitchen aerator produces an annual reduction of: 9 therms
Retrofit kitchen aerator produces a lifetime reduction of: 47 therms

Electricity:
Average kitchen aerator requires: 1.74 kWh
Retrofit kitchen aerator requires: 1.04 kWh
% of water heated by electricity: 30%
Retrofit kitchen aerator produces an annual reduction of: 76 kWh
Retrofit kitchen aerator produces a lifetime reduction of: 380 kWh

Number of participants: 380
Installation / participation rate of: 41%

Total reduction from kitchen aerator retrofit:
Annual: 355,419 gallons
1,451 therms
11,841 kWh

Lifetime: 1,777,094 gallons
7,254 therms
59,204 kWh

1. Product life taken from manufacturer.
## Estimated Savings from Bathroom Aerator Retrofit

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Bathroom Aerator</th>
<th>Retrofit Bathroom Aerator</th>
<th>% of Water Heated</th>
<th>Annual Reduction</th>
<th>Lifetime Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average flow rate</td>
<td>2.00 gpm</td>
<td>1.00 gpm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gas</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average therm</td>
<td>0.07</td>
<td>0.04</td>
<td>70%</td>
<td>9 therms</td>
<td>47 therms</td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average kWh</td>
<td>1.39</td>
<td>0.69</td>
<td>30%</td>
<td>76 kWh</td>
<td>380 kWh</td>
</tr>
</tbody>
</table>

**Number of Participants:** 380
**Installation / Participation Rate:** 44%

**Total Reduction from Bathroom Aerator Retrofit:**

- **Annual:**
  - Water: 381,425 gallons, 1,557 therms, 12,707 kWh
  - Gas: 9 therms
  - Electricity: 76 kWh

- **Lifetime:**
  - Water: 1,907,125 gallons, 7,784 therms, 63,536 kWh
  - Gas: 47 therms
  - Electricity: 380 kWh

---

1. Product life taken from manufacturer.
# Home Audit Data

## Section I - Home Check-up

1. **What type of home do you live in?**
   - Single family home: 81%
   - Multi-family (2-4 units): 12%
   - Multi-family (5-20 units): 6%
   - Multi-family (21+ units): 1%

2. **Was your home built before 1992?**
   - Yes: 47%
   - No: 53%

3. **Is your residence owned or rented?**
   - Owned: 78%
   - Rented: 22%

4. **Does your home have an automatic sprinkler system?**
   - Yes: 13%
   - No: 87%

5. **How many kids live in your home?**
   - 1: 13%
   - 2: 38%
   - 3: 28%
   - 4: 13%
   - 5+: 8%

6. **How many adults live in your home?**
   - 1: 16%
   - 2: 76%
   - 3: 5%
   - 4: 2%
   - 5+: 1%

7. **Does your home have a dishwasher?**
   - Yes: 90%
   - No: 10%

8. **How many half bathrooms are in your home?**
   - 0: 56%
   - 1: 36%
   - 2: 7%
   - 3: 1%
   - 4+: 1%
### APPENDIX B

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 How many full bathrooms are in your home?</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>1%</td>
</tr>
<tr>
<td>10 How many toilets are in your home?</td>
<td>1</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>4%</td>
</tr>
<tr>
<td>11 How is your water heated?</td>
<td>Natural Gas</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>30%</td>
</tr>
</tbody>
</table>
**Section II - Home Activities**

1. Did you install the high efficiency showerhead?
   - Yes: 50%
   - No: 50%

2. What is the flow rate of your old showerhead?
   - 0 - 1.0 gpm: 7%
   - 1.0 - 1.5 gpm: 8%
   - 1.5 - 2.0 gpm: 32%
   - 2.0 - 2.5 gpm: 25%
   - 2.5 - 3.0 gpm: 20%
   - 3.0+ gpm: 9%

3. What is the flow rate of your new showerhead?
   - 0 - 1.0 gpm: 33%
   - 1.0 - 1.5 gpm: 35%
   - 1.5 - 2.0 gpm: 32%

4. Was your toilet leaking?
   - Yes: 23%
   - No: 77%

5. Did you install the bathroom aerator?
   - Yes: 44%
   - No: 56%

6. What is the flow rate of your old bathroom aerator?
   - 0 - 1.0 gpm: 14%
   - 1.0 - 1.5 gpm: 15%
   - 1.5 - 2.0 gpm: 28%
   - 2.0 - 2.5 gpm: 17%
   - 2.5 - 3.0 gpm: 15%
   - 3.0+ gpm: 10%

7. Did you install the kitchen aerator?
   - Yes: 41%
   - No: 59%
8 What is the flow rate of your old kitchen aerator?
   0 - 1.0 gpm  9%
   1.0 - 1.5 gpm  14%
   1.5 - 2.0 gpm  42%
   2.0 - 2.5 gpm  14%
   2.5 - 3.0 gpm  14%
   3.0+ gpm  7%

9 How many faucets are leaking?
   0  83%
   1  11%
   2  5%
   3  1%
   4+  1%

10 Did you work with your family on this program?
   Yes  76%
   No  24%

11 Did you change the way you water outdoors?
   Yes  35%
   No  65%

12 Have you and your family change the way you use water?
   Yes  75%
   No  25%

13 How would you rate the WaterWise program?
   Great  42%
   Pretty good  24%
   Okay  28%
   Not so good  6%
Teacher Program Evaluations

1. The materials were attractive and easy to use.
   - Strongly Agree: 70%
   - Agree: 30%
   - Disagree: 0%
   - Strongly Disagree: 0%

2. The materials and activities were well received by students.
   - Strongly Agree: 100%
   - Agree: 0%
   - Disagree: 0%
   - Strongly Disagree: 0%

3. The materials were clearly written and well organized.
   - Strongly Agree: 100%
   - Agree: 0%
   - Disagree: 0%
   - Strongly Disagree: 0%

4. The conservation technologies were easy for students to use.
   - Strongly Agree: 70%
   - Agree: 30%
   - Disagree: 0%
   - Strongly Disagree: 0%

5. Students indicated that their parents supported the program.
   - Strongly Agree: 50%
   - Agree: 50%
   - Disagree: 0%
   - Strongly Disagree: 0%

6. If you had the opportunity, would you conduct this program again?
   - Yes: 100%
   - No: 0%

7. Would you recommend this program to other colleagues?
   - Yes: 100%
   - No: 0%
April 30, 2008

Dear City of Lawrence,

I would like to thank you for sponsoring the Water Wise program. My students enjoyed watching the video and using the kits. They have a better understanding of how we waste water and how to do fairly simple things to conserve it. Thank you for your support of Lawrence youth and education.

Sincerely,

Krista Robertson
4th Grade Teacher
Wakarusa Valley Elementary

[Handwritten names of students: Jacob, Jordan, Darian, Macey, Piper, Amanda, Kellan, Jeremiah, Jadan, Elijah]
January 31, 2008

Dear Water Wise,

I just wanted to send a quick thank you, for allowing us to participate in your Water Wise Program. I strongly feel that my students learned many valuable things from your program. I appreciate the information that helps make learning our standards fun, and the kits continue to be great motivators. My class this year is composed of many children who are homeless or renting. I passed out kits to all of my students and then asked that if they did not use them that they return them, however, many students were too embarrassed to return them or simply did not follow directions. I received many letters from parents apologizing for not being able to use many parts of the kits, but thanking me for sending them home. As a result many of my students did not do all of the home activities, and the information written in this section is sketchy or incomplete. Again thank you for this chance to participate in your program, I just wanted you to understand the blanks on the sheets.

Sincerely,

Jennifer Walters
Woodlawn