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The Conservation Balancing Act: Part III. In the Laundry[1]

Virginia Peart[2]

The Situation

Conservation is everybody's business. The big questions are: When? How much? What do I have to give up? The answer may be to get into **The Conservation Balancing Act**. Learn what waste is and you may be able to conserve more water and the energy required to heat water than you think without sacrificing the benefits.

Can **The Conservation Balancing Act** work for us when laundering clothes? How can we balance water and the energy used to heat water for laundering against providing clean, fresh clothes?

Then

There was a time early in this century when conservation of resources when laundering was imperative. Laundering clothes was just one of many labor-intensive chores for the women in the home. Washing and ironing clothes took two full days of each and every week. Most men in the family worked on farms and in shops where their clothes became heavily soiled. Children's clothes became dirty too as games and play were usually outside and didn't include TV or computer games. Monday's laundry had many heavily soiled clothes, towels and bed linens.

These clothes were hard to clean. A strict routine of soaking, scrubbing with a washboard, boiling, bluing and starching were required to restore clothing and household linens to the expected clean condition.

Conservation in the past was partly to save the hard work of washing clothes. What followed naturally was the conservation of water and the energy to heat water as well. After all, physical labor was required to hand pump the water, carry it into the house and to bring in wood to fire the kitchen stove. There was extra labor for scrubbing clothes, wringing and hanging them to dry. But cleanliness became an important mark of a good homemaker -- a symbol women took seriously.

Now

Over the years our standards of cleanliness and aesthetics have changed. People no longer accept spots, soil or odors on clothes. Children's clothes are sometimes changed several times a day. Many clothes are washed after only a few hours wearing so they will appear fresh.

Our high standards are easily within reach with little effort and little dollar cost. With a seemingly unlimited supply of water and energy to heat water and the effectiveness of laundry appliances,

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2. Virginia Peart, former associate professor, Housing, reviewed by Nayda I. Torres, professor, Family and Consumer Economics, Department of Family, Youth and Community Sciences, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

detergents and other laundry agents, plus the near-miracle fabrics, much of the drudgery and unpleasantness has been removed from the once-dreaded chore of washing clothes.

Conservation, so important in the past, cannot further reduce the little labor required for laundering clothes. Water and energy costs **seem low.** Technology has provided an abundance of water and energy, but there **is a cost** we must face. Our supply of water and energy is limited; our environment is endangered.

Historically, we Americans have given little thought to water and energy as limited resources on a large scale. We often view the conservation of water as highly situational, varying with temporary shortages and periodic water contamination problems. Energy conservation seems less important now than it was in the 1970s. Since then industry and energy producers have made strides in their conservation efforts. Conversely, the residential sector of the Florida economy is finding it difficult to conserve when costs are fairly low. But the frequency of water shortages in Florida has brought about a slow recognition of both limited resources (water and energy) and environmental impact (damaging the resources we have). In Florida, we have discovered this is especially true of water which is often a non-renewable resource, coming as it does from the thin layer of fresh water riding the surface of the salt water in the Floridan Aquifer.

Water and Energy Facts for the Laundry

Table 1 **provides some clues as to how much a household might pay for the water and energy to heat water for laundering clothes.**

Consider that no two washers are alike. No two families will wash exactly the same number of loads or use the same load size all of the time. The situation may not fit yours exactly, but can serve as a good comparison of ways to save water and energy when doing the laundry.

Notice how much water the washer in the example uses. (50 gallons for a full load, 30 gallons for a partial load)

Note that the example shows water and energy costs for doing 7 loads a week. That is 365 loads a year and will use 18,200 gallons per year for a full load and 10,920 gallons for a partial load.

Costs are provided for both water use and wastewater billing. If a family has a private well or is not billed for waste water, these costs can be ignored when considering how to conserve and save money.

Note the big difference in the cost of heating water with gas and electricity.

Next note how much less energy costs are when a family uses a warm wash and cold rinse instead of a hot water wash and warm water rinse.

Note that a cold wash/cold rinse cycle has **no** cost for energy.

Your Conservation Balancing Act

When Shopping for a New Washer

- Buy washer efficiency. Check the energy efficiency labels for the lowest numbers. That will save both water and energy costs.
- Consider a front-loading washer. They use only about 1/3 as much water as a top-loading washer. And the cleaning results are just as good as with a top-loading washer.
- Insist on a washer with several water levels. Make sure you match the water level to each load you wash.

Plan Your Clothing for Easy Washing

- Avoid buying clothes that require separate washing. Many separate washer loads waste water and energy.
- Avoid getting clothes excessively dirty. Dirt from heavily soiled clothes can be transferred to cleaner clothes when washed together.
- Encourage children to change into play clothes after school so school clothes and play clothes can be worn more than one time.

When Washing Clothes

- Plan your laundry times to keep from holding stained and heavily soiled clothes too long. Consider the sanitation implications. In Florida's humid climate soiled clothes can quickly mildew.
- Whenever possible, use only full loads of similar items to get maximum use of water and energy. Pay attention to recommended sorting procedures to build a full washer load. Remember that soils and stains are more difficult to remove if they have remained on the fabric a long time.
- Don't overload the washer. Clothes do not clean well if they cannot move around freely in the washer and constant overloading can shorten the life of a clothes washer.
- Don't underload the washer. Part of the cleaning action occurs when articles of clothing lightly scrub against each other. This friction is necessary to get clothes clean.
- Launder with cooler wash water and cold rinse water. Here are ways to compensate for the lost cleaning power with cooler water:
    - Increase the amount of detergent if clothes are heavily soiled.
    - Increase the length of the washing cycle.
    - Use a prewash or soak cycle to help release soil.
    - Use pretreatment spot and stain removers on tough stains before washing.
    - Soften hard water with a mechanical or packaged water conditioner.

Remember: When you save water, you are saving the energy to produce that water. When you save energy, you are saving the water required to produce that energy.

THINK EFFICIENCY -- Say YES to clean clothes and household linens, but save water and energy. You will save money, too.

Table 1.

Avoiding Laundry Water and Energy Waste						
	For One Person		Family of Four		Cost Per Year -- $	
	Times Per Day	Gallons Per Year	Water	Waste Water	Energy w/ Elec. Water Heater	Energy w/ Gas Water Heater
Hot/Warm Wash/Rinse						
Full Load -- 50 gal	7	18,200	$18.20	$34.58	$151.60	$20.04
Partial Load -- 30 gal	7	10,920	$10.92	$20.75	$90.96	$12.02
Warm/Cold Wash/Rinse						
Full Load -- 50 gal	7	18,200	$18.20	$34.58	$50.53	$6.68
Partial Load -- 30 gal	7	10,920	$10.92	$20.75	$30.32	$4.01
Cold/Cold Wash/Rinse						
Full Load -- 50 gal	7	18,200	$18.20	$34.58		
Partial Load -- 30 gal	7	10,920	$10.92	$20.75		
Savings Potential						
Hot/Warm *minus* Warm/Warm		$0	$0	$0	$101.07	$13.36
Hot/Warm *minus* Cold/Cold		$0	$0	$0		