

God's Creation and You

A practical handbook of conservation

2007

“In the beginning when God created the heavens and the earth, the earth was a formless void and darkness covered the face of the deep, while a wind from God swept over the face of the waters. Then God said, ‘Let there be light’; and there was light. And God saw that the light was good; and God separated the light from the darkness. God called the light Day, and the darkness he called Night. And there was evening and there was morning, the first day...

“And God said, ‘Let the waters under the sky be gathered together into one place, and let the dry land appear.’ And it was so. God called the dry land Earth, and the waters that were gathered together he called Seas. **And God saw that it was good.**” Genesis 1.1-10 (NRSV)

Fredonia Presbyterian Church
219 Central Avenue
Fredonia, NY 14063
716-679-1501

Introduction

This booklet is intended as a guide for change and action for those who are concerned about restoring and preserving God's creation. It does not include the research behind, or explanations for, the suggestions but the websites that were used are listed at the end of the booklet. If you are interested in learning more about eco-justice and related subjects, you are encouraged to check out these websites as a start to your own research.

In front of each suggestion is a space. You are encouraged to check off the suggestions you are already following and to consider increasing your commitment each month by adopting other suggestions into your routines.

Cynthia Wickwire Lundquist

Table of Contents

<i>Heating/Cooling</i>	3
<i>Air</i>	3
<i>Lighting</i>	4
<i>Electrical and Natural Gas Appliance and Equipment Usage</i>	4
<i>Water Usage and Heating</i>	4
<i>Kitchen</i>	5
<i>Bathroom</i>	7
<i>Laundry</i>	7
<i>Cleaning</i>	8
<i>Computers and Miscellaneous Electronics</i>	8
<i>Paper Usage</i>	9
<i>Junk Mail</i>	9
<i>Trash Disposal</i>	10
<i>Lawn and Garden Care</i>	10
<i>Driving and Car Maintenance</i>	11
<i>Shopping</i>	12
<i>Out on the Town</i>	12
<i>Outdoor Living and Recreation</i>	13
<i>Travel</i>	13
<i>Websites</i>	14

Heating/Cooling

__ Set your thermostat comfortably low in the winter and comfortably high in the summer. (Two degrees both ways can save up to \$100 a year in energy costs.)

__ Turn your thermostat down 10 to 15 degrees at night, or during the day while you at work. (8 hours of this lower temperature could save 5% or 15% on your annual heating bill.)

__ Install a programmable thermostat to automatically lower and raise your temperature as needed.

__ Close doors to unused rooms.

__ Check insulation levels in attic, exterior and basement walls, ceilings, floors and crawl spaces. (for details see www.energysavers.gov)

__ Fill in holes, caulk or seal cracks (i.e. exposed air paths) around your walls, ceilings, windows, doors, light and plumbing fixtures, switches and electrical outlets that can leak air into or out of your home.

__ If windows are not insulated or double-paned, use a heavy-duty, clear plastic sheet on a frame or tape clear plastic film to the inside of your window frames during cold winter months.

or

__ Install exterior or interior storm windows. (Or repair and weatherize your current storm windows)

__ Keep fireplace dampers closed.

__ Insulate and seal air ducts. (Have this work done by a professional)

__ Consider using an interior fan in conjunction with your window air conditioner to spread the cooled air more effectively through your home without greatly increasing your power use.

__ In winter, close curtains and shades at night, open them during the day to allow sunlight in. During summer, use shades or curtains to limit sunshine into home.

__ Keep windows on the south side of your house clean to let in the winter sun.

__ Consider using “green” energy options offered by your utility companies. (Google “green energy” to learn more)

__ Check weather stripping around hinged and sliding doors. Replace damaged or worn stripping.

__ Consider getting an energy audit of your home by calling your local utility company.

Air

__ Use paint with a low VOC (volatile organic compounds) and avoid oil based paint to limit off-gassing.

__ Limit synthetic carpets and get area rugs on hardwood floors. Vacuum frequently to limit toxins.

Lighting

__ Use compact fluorescent light bulbs. To calculate wattage needed, divide current incandescent bulbs by four.

__ Turn off lights when not in use and consider occupancy sensors, dimmers or timers.

__ Use task lighting: instead of brightly lighting an entire room, focus the light where you need it.

__ Consider three-way lamps; they make it easier to keep lighting levels low when brighter light is not necessary.

__ Use 4 foot fluorescent fixtures with reflective backing and electronic ballasts for your workroom, garage, and laundry areas.

__ Take advantage of daylight by using light-colored, loose-weave curtains to allow daylight to penetrate the room while preserving privacy.

__ Decorate with lighter colors that reflect daylight.

__ Use outdoor lighting with photocell unit or motion sensor (or both).

__ Avoid decorative outdoor natural gas lamps.

Electrical and Natural Gas Appliances and Equipment Use

__ Plug home electronics, such as TVs, DVD players, CD players, coffee makers (basically anything that is 'instant on' or may use electricity while turned off) into power strips; turn the power strips off when the equipment is not in use. (Even when these electronic devices are turned off, they still use electricity.)

__ Look for the Energy Star label on home appliances and products.

__ Contact your repairman if your natural gas appliance is burning a yellow flame because this indicates that the gas is burning inefficiently.

__ Clean or replace furnace, air-conditioner and heat-pump filters regularly and invest in regular maintenance so that they work efficiently.

Water usage and heating

__ Never pour water down the drain when there may be another use for it such as watering a plant or garden, or for cleaning. Consider saving water used washing vegetables or cooking vegetables, rice or pasta for other uses. This water could be used to rinse dishes before they go in the dishwasher.

__ Consider installing an instant water heater on your kitchen sink so that you don't have to let the water run while it heats up.

__ Install water softening systems only when necessary. Save water and salt by running the minimum amount of regenerations necessary to maintain water softness. Turn softeners off while on vacation.

__ Verify that your home is leak free. Read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak. Another clue is if you have a well and the water pump comes on when no one is using water.

__ Lower the thermostat on hot water heater to 120 degrees or change to a tank-less water heater.

__ Consider low-flow, aerating faucets and showerheads. Take screw on faucet aerators to hardware store to see whether they are low-flow and replace them if they are not.

__ Repair leaky faucets promptly

__ Insulate your electric hot-water storage tank

__ Insulate the first 6 feet of the hot and cold water pipes connected to the water heater

__ Drain a quart of water from your water tank every 3 months to remove sediment that impedes heat transfer and lowers the efficiency of your heater

__ Place faucet lever on kitchen or bathroom sink in cold position when using small amounts of water (placing lever in the hot position uses energy to heat the water even though it may never reach the faucet.) If you have a non-mixer faucet (i.e. separate hot and cold handles), use only cold water when using a small amount of water.

__ Consider purchasing a new more energy efficient water heater.

Kitchen

__ Clean vegetables in a sink or pan partially filled with water rather than run water from a tap.

__ Use the plastic elasticized bowl covers (they are like shower caps) instead of saran wrap or foil to cover food in the refrigerator. These covers are reusable.

__ Wash out plastic bags and reuse them whenever possible.

__ Buy a reusable plastic container for sandwiches and snacks instead of plastic bags.

__ Scrape off, don't rinse, large food pieces and bones before putting plates in the dishwasher. If necessary, rinse in water accumulated in a bowl in sink from other tasks. (Soaking or pre-washing is generally only recommended in cases of burned-on or dried-on food.)

__ Wash only a full load of dishes in your dishwasher and let dishes air dry.

__When washing dishes by hand, fill one sink or basin with soapy water. Quickly rinse under a slow-moving stream from the faucet. (A full dishwasher uses less water than washing dishes by hand.)

__Store drinking water in the refrigerator. Don't let the tap run while you are waiting for cool water to flow.

__Do not use running water to thaw meat or other frozen foods. Leave overnight in refrigerator or use microwave.

__Keep range-top burners and reflectors clean, they will reflect the heat better.

__Use a covered kettle or covered pan to boil water.

__Match the size of the pan to the heating element and use the smallest pan appropriate to the task.

__Use small electric pans or toaster ovens for small meals rather than your large stove or oven.

__Use microwave ovens whenever it is convenient.

__When using a standard oven: 1) avoid preheating when you can, 2) don't open the oven door (this can drop interior temperature by up to 50 degrees) and 3) bake more than one item at a time if possible.

__Don't keep your refrigerator or freezer too cold. (37 to 40 degrees F for the fresh food area and 5 degrees F for freezer. Separate freezer can be 0 degrees F.)

__Make sure that refrigerator door seals are air tight. (Close the door over a piece of paper. If you can pull the paper out easily, latch may need adjusting.)

__Cover liquids and wrap foods stored in the refrigerator. (uncovered foods release moisture and make the compressor work harder)

__Remember to vacuum your refrigerator's coils.

__Make sure your appliances are properly maintained. Replace with more energy efficient models when possible. (For example, side by side refrigerators use more energy than traditional models with freezer on top. Also, look for energy star)

__When buying a natural gas range, consider an automatic, electric ignition system vs. pilot lights that constantly burn gas. (though be aware that during a power outage you will not be able to turn on your burners or oven)

__Avoid the use of portable bottles of water. The water in these bottles is often no better than tap water. Also the use of these bottles increases the production of plastic. Buy a filter for your faucet if you are concerned or a pitcher with a filter for your refrigerator. When carrying water, just use a reusable plastic bottle filled with tap water.

__Use cloth napkins instead of paper. Use napkin rings to identify whose is whose and reuse napkins a few times before washing.

Bathroom

__ Don't let water run while shaving or washing your face.

__ When brushing your teeth, instead of letting the water run, fill a cup with water, moisten and rinse toothbrush in that water and then rinse mouth with it.

__ Take short showers instead of baths (Showers account for 2/3 of typical water heating costs. But a bath can use up to 8 times more water than a short shower.)

__ Consider a shower head that allows you to cut off the flow without adjusting the water temperature knobs. Then you can turn the water on to get wet, turn it off to lather up, then turn it back on to rinse off.

__ Install a low flow showerhead if you do not have one. If you are not sure whether you have one, put a bucket beneath the shower head and let the shower run for two minutes. If the water in the bucket is overflowing, you could cut your shower's water usage in half with a new low flow head. (2 ½ gallons per minute versus 5 ½ gallons per minute.

__ Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other similar waste in the trash rather than the toilet.

__ Check for toilet leaks by adding three drops of food coloring or a dye tablet to the tank. If the toilet is leaking, color will appear in the toilet bowl within 30 minutes. Flush as soon as the test is complete, since food coloring may stain the tank.

__ Check the toilet for worn out, corroded or bent parts.

__ If the toilet handle frequently sticks in the flush position letting water run constantly, replace or adjust it.

__ If you do not have a low-volume toilet, install a toilet dam or displacement device such as a bag or bottle (e.g. a liter plastic jug with some water and a few stones or sand) to cut down on the amount of water needed for each flush. Be sure installation does not interfere with the operating parts.

__ When purchasing a new or replacement toilet, consider low-volume units. Low volume units use about 1 ½ gallons versus 8 gallons for toilets made before 1993.

Laundry

__ Run only a full load of clothes in your washer or adjust the water level to match the size of the load.

__ Wash clothes in cold water using cold-water detergents whenever possible. Use warm water, not hot where cold is not appropriate.

__ Use laundry soaps that have no phosphates and are plant base versus petroleum based.

__Chlorine contaminates ground water, so consider using hydrogen peroxide or oxygen based cleaners on stains.

__Dry towels and heavier cottons in a separate load from lighter-weight clothes so you can shorten your drying time on the lighter load.

__Don't over-dry your clothes. If machine has a moisture sensor, use it.

__Clean the lint filter in the dryer after every load to improve air circulation.

__Use the cool-down cycle to allow the clothes to finish drying with the residual heat in the dryer.

__Periodically inspect your dryer vent to ensure it is not blocked.

__Consider air-drying clothes on clothes lines or drying racks.

__Consider buying a front loading washing machine since they use less water and electricity than top loading machines.

Cleaning

__Use non-toxic (or "green") cleaning products. (vegetable-based and biodegradable)

__Make your own cleaner using vinegar, water and castile soap.

Computers and Miscellaneous Electronics

__Turn off computer and monitor when not in use. Also turn off the power strip.

__To maximize savings with a laptop, put AC adapter on a power strip that can be turned off or will turn off automatically. (transformers in AC adapters draw power continuously even when laptop is not plugged into the adapter)

__Activate power management features on computers.

__Set up your computer to automatic switching to sleep mode or manually turn monitors off to save energy (screen savers do not reduce energy use by the monitor).

__Consider a laptop for your next computer. (they use much less energy than desktop computer)

__Unplug battery chargers when the batteries are fully charged or the chargers are not in use.

__Use rechargeable batteries when possible.

Note: Equipment does not last longer if it is never turned off!

Paper Usage

__ Avoid using disposable paper products whenever possible. This includes paper plates and cups and disposable cleaning clothes, disposable toilet brushes, floor mop clothes, paper towels and wipes.

__ Use clothes and rags for cleaning since they can be washed and reused. If you are concerned about keeping sponges clean, wash them in your dishwasher whenever you run it.

__ If using paper products, use ones made from recycled paper, with a high percentage of post-consumer paper.

__ Use both sides of writing and note paper and use waste paper for notes and household lists

__ Purchase recycled paper of the highest percentage of post-consumer content and processed without chlorine since chlorine is a serious pollutant.

__ Get a two sided computer printer for your next printer purchase.

__ Use the unused side of printed sheets before recycling.

__ Use paper towels as little as possible. When you do buy them, use recycled, non-bleached products.

__ Contact your local recycling service as to what paper items can be recycled and recycle as much as possible. (Some take junk mail and magazines.)

Junk Mail

__ Get off of the Junk Mailing List by visiting Direct Marketing Association's consumer opt-out services. (www.dmaconsumers.org under consumer assistance)

__ Whenever you fill out a form or place an order, always write "Do not rent or exchange my name" or ask the order take to please "flag your file" so that your information won't be shared.

__ To avoid getting on mailing lists, do not fill out product warranty cards (The warranty is valid whether or not you return a card. Just keep your receipt.)

__ Sign up for automatic payment and avoid the excess paper in your mailed bills.

__ Cut the catalogs you receive in the mail by calling the catalog's 800 number offered for ordering and ask them to remove your name from their list. Ask where they got your information and contact that business telling them to stop selling your name.

__ Return "high-end junk mail." For First Class mail and mail marked "Address correction requested" or "Return postage guaranteed," ink out the barcode and write "Return to Sender – Refused by Addressee" on the front (this is the correct instruction for the U.S. Postal Service). You can also write "Please remove my name from your mailing list" on the envelope so the sender knows why you're returning it.

Trash Disposal

__ Recycle everything your trash pick-up company allows. If they do not recycle, consider changing companies.

__ Look into composting.

Lawn and Garden Care

__ Use a push mower if at all possible. (Use muscle instead of fossil fuels)

__ Avoid use of pesticides. If you must use something, use organic pest controllers such as diatomaceous earth. (Or plant flowers and herbs that act as natural pesticides)

__ Avoid insecticides since they will kill all insects including ones eaten by birds. The birds will suffer and you will have fewer birds visit your property.

__ Use landscaping to create effective shade with a well-placed tree, shrub or vine.

__ Plant a tree.

__ Don't over water your lawn. Over watering promotes shallow root growth and makes your lawn less hardy. (To determine if lawn needs watering, simply walk across the grass. If you leave footprints it's time to water).

__ Water lawns before 8:00 a.m. (As much as 30% of water can be lost if watering is done at midday. Night watering can promote fungus growth.) Also avoid watering on windy days.

__ Don't waste water by allowing sprinklers to water your street, driveway or sidewalk.

__ Install efficient irrigation devices. (Micro and drip irrigation and soaker hoses are examples).

__ Maintain sprinkler systems and timing devices.

__ Raise the lawn mower blade to at least three inches or to it highest level. (A higher cut encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely-clipped lawn.)

__ Avoid over fertilizing your lawn. Fertilizer applications increase the need for water. Apply fertilizers which contain slow-release, water-insoluble forms of nitrogen.

__ Use mulch to retain moisture in the soil. Mulch also helps to control weeds that compete with landscape plants for water.

__ Do not hose down your driveway or sidewalk. Use a broom to clean leaves and other debris from these areas.

__ Use a shut-off nozzle on your hose which can be adjusted down to a fine spray so that water flows only as needed. When finished, turn it off at the faucet instead of at the nozzle to avoid leaks. Check hose connectors to make sure plastic or rubber washers are in place. Washers prevent leaks.

__ Do not leave sprinklers or hoses unattended. A garden hose can pour out 600 gallons or more in only a few hours. Use a kitchen timer to remind yourself to turn sprinklers off.

__ Avoid purchasing recreational water toys which require a constant stream of water.

__ Avoid the installation of ornamental water features (such as fountains) unless the water is recycled.

__ Cover pool or spa to prevent evaporation. Check regularly for leaks and repair promptly.

__ Collect water in a rain barrel and use it to water garden.

__ Reduce lawn by planting native plants, trees, and shrubs that increase biodiversity and contribute to the integrity of the environment.

Driving and Car Maintenance

__ Warm up your vehicle no more than 30 seconds.

__ Avoid speeding, rapid acceleration and hard braking.

__ Avoid high speeds. Above 60 mph, gas mileage drops rapidly

__ Use overdrive gearing.

__ Use cruise control on the highway.

__ Use air conditioning in your car only when necessary (air conditioning eats gasoline).

__ Clear out your car (extra weight decreases gas mileage).

__ Use the grade of motor oil recommended by car's manufacturer (different oil can lower mileage).

__ Keep tires properly inflated and aligned. Check inflation level regularly.

__ Get regular engine tune-ups (as needed) and car maintenance checks.

__ Check your air filters monthly. Replace clogged air filters.

__ Carpool or use public transit whenever possible.

__ Combine errands into one trip (Several short trips, each one taken from a cold start can use twice as much fuel as one trip covering the same distance).

__ Don't buy a higher octane gas than your car requires (higher octane gas releases more hazardous pollutants into the air).

__ Consider using a commercial car wash that recycles water.

__ If you wash your own care, park on the grass and use a hose with an automatic shut-off nozzle to stop the flow of water between rinsings. Use a bucket of soapy water for the washing.

__ Aim for a certain number of car-free days a month.

__ When purchasing a new vehicle, buy a fuel efficient or hybrid model.

Shopping

__ Buy products made of recycled materials

__ Bring your own reusable canvas bags for grocery packing instead of plastic or paper.

__ Buy biodegradable products for disposable cups and plates when available. (Do not buy Styrofoam if possible. It is forever.) At best, avoid disposable products whenever possible.

__ Buy locally grown produce and/or certified organic produce (less gas is spent on the delivery of locally grown produce)

__ Purchase locally raised meat when possible (also, by replacing one beef meal a week you can save grain, topsoil and water)

__ Buy un-bleached coffee filters (chemicals formed during bleaching process contaminate groundwater)

__ Avoid over-packaged foods. Buy minimally packaged goods.

__ Try to buy only #1 or #2 or LDPE (low density polyethylene) #4 plastics. These are fairly easy to recycle.

__ Do not purchase plastics that are labeled as PVC (polyvinyl chloride) or #3 (the #3 found in the triangle may have a v below it.) This plastic is polyvinyl chloride and many toxins are used in its production. Some suggest that these toxins are also given off while the products are in use (e.g. the smell of a new shower curtain). Note that this plastic is sometimes used in children's toys.

__ If you purchase plastic forks or spoons, buy sturdy ones so that they can be reused. Many sturdier utensils can go in the dishwasher. There are also compostable food service items available in some areas.

__ Do not purchase, or use, Styrofoam products. They will never breakdown in a landfill.

Out on the Town

__ Ask restaurants whether they have containers for take-home other than Styrofoam or plastic #5.

__ In a public restroom, use the electric blow dryer if you can't drip dry, instead of the paper towels.

Outdoor Living and Recreation

__ Retrieve all fishing line, lures, and gear – even if tangled or broken

__ Drive your boat as though life depended on it because it does (damaging wake can tear up plants and erode shoreline and slashing boat propellers can damage water life)

__ On trips to the beach or woods, carry out whatever you carry in

__ Don't feed or harass wildlife

__ Don't remove any natural artifacts

__ Stay on the trail in the woods and camp in designated areas

__ Consider participating in a beach, park or roadside clean-up in your area

__ Use biodegradable soap when in the out of doors for shampooing, dishwashing, bathing and clothes washing.

__ Pick up any litter you see (whether or not it is yours!)

Travel

__ Consider alternative modes of travel. For example, planes burn a very large amount of fuel. Traveling by car on the expressway may burn more fuel than taking side roads. The side roads are not helpful if that route is significantly longer or entails a great deal of stopping and starting.

__ Use reusable containers for toiletries versus small disposables.

__ Bring a reusable drinking bottle with you so that you can refill it with tap water or from larger bottles of clean water. This avoids using numerous smaller plastic bottles.

Websites of interest and sources for handbook

www.prcweb.org - Presbyterians for Restoring Creation

www.coopamerica.org - economic action for a just planet

www.earthday.net - resources for earth day celebrations

www.earthministry.org - to inspire and mobilize the Christian community to a leadership role in building a just and sustainable future

www.eco-justice.org - an independent, ecumenical web site

www.energystar.gov - U.S. Government website

www.grist.org/advice - environmental news and commentary

www.nccecojustice.org - National Council of Churches eco-justice group

www.nrpe.org – National religious partnership for the environment: good source for biblical references and denominational statements on the environment

www.protectingcreation.org – People of faith acting together for climate justice.

www.simpleliving.org – Alternatives for simple living is a non-profit organization that equips people of faith to challenge consumerism, live justly and celebrate responsibly

www.thegreenguide.com – National Geographic: includes a green home makeover and product reports

www.theregenerationproject.org – Interfaith ministry devoted to deepening the connection between ecology and faith : good resource for a home energy audit and renewable energy sources

www.webofcreation.org – Ecology resources to transform faith and society

calculate your water usage at www.tampagov.net/dept_water/conservation-education

examine your ecological footprint www.myfootprint.org

calculate your carbon footprint or take an impact survey at PCUSA.org/hunger/features/climate.htm

calculate the amount of carbon emissions your lifestyle produces www.co2.org