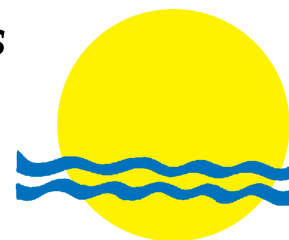


# Care of Creation in Alabama Watersheds



## Preparations

Arrange a classroom table “altar” with a cloth, a candle, a clear container with water, and a Bible open to Ephesians 3:20-21. Familiarize yourself with the resources mentioned in this session, so that you can refer to them as you share information about Care of Creation in Alabama. As class begins, invite participants to add to the table their estimated household water usage, and their estimated “Carbon footprint.”

## Reflection: 10 minutes

### Prayer

*Almighty God, in giving us dominion over things on earth, you made us fellow workers in your creation: Give us wisdom and reverence so to use the resources of nature, that no one may suffer from our abuse of them, and that generations yet to come may continue to praise you for your bounty; through Jesus Christ our Lord. Amen.*

BCP Prayer For the Conservation of Natural Resources, BCP p. 827, #41

Re-read the opening prayer, inviting participants to listen in meditative silence, considering the following:

- In ancient Hebrew thought, “dominion over” means “responsibility for.”
- We are “fellow workers” with God.
- We are called to environmental justice “so that no one may suffer from our abuse of the resources of nature.”
- We are called to care for Creation for ourselves and for “generations yet to come.”

After re-reading the prayer, and one minute of silent reflection, take 10 minutes for the group to share their responses, having re-listened to the prayer.

## Scripture Reading

*Glory to God whose power, working in us, can do infinitely more than we can ask or imagine: Glory to God from generation to generation in the Church, and in Christ Jesus for ever and ever. Amen.*

Ephesians 3:20-21. BCP p. 126

## Education: 20 minutes

In this Session we are exploring ways we as individuals and as a congregation can promote Care of God’s Creation at church, home, school, workplace, community venues, recreation and sports facilities, and vacation accommodations. We are laying the groundwork for our Care of Creation Covenant. Our next Session, Session Five, will focus on creating our Covenant commitment.

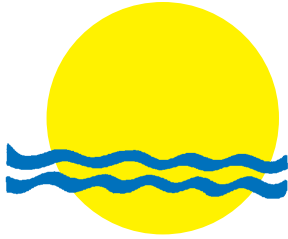
There are three main ways we impact rivers most directly:

1. through water we withdraw from surface and groundwater sources to drink and use;
2. through treated sewage we discharge back to our rivers and lakes after we have used the drinking water; and
3. through stormwater runoff coming from our property and areas of development.

Reducing and reusing our drinking water – which will reduce treated sewage – and harvesting

*“Our bodies  
are about 60% water,  
from the water we drink.  
For those of us  
who are on the Birmingham  
Water Board system,  
when we pick up our kids  
or grandkids  
to put them to bed  
for the night,  
most of what we hold  
in our arms  
is the Cahaba River.”*

Beth Stewart, Cahaba River Society



*The Stewardship of Creation  
Task Force exists*

*to educate  
the people of the diocese*

*to advocate  
for wise and just  
environmental policy  
[work, school, government,  
church]*

*to provide  
opportunities for service  
in the stewardship of earth.*

rainwater instead of converting it to polluting stormwater, will have three benefits: reducing energy use, conserving our rivers, and saving us money.

### **Water Resources**

Our drinking water resources are finite, and developing new water resources, such as by building new dams and reservoirs, is extremely costly and destroys free-flowing rivers and the life they support. While past reservoirs in Alabama helped develop this state, we have very few free-flowing streams left. Also, the amount of drinking water we withdraw from our rivers directly affects life in the rivers. Taking out too much water, especially in dry, hot weather, leaves too little to properly sustain delicate river life downstream. If climate change brings greater drought to Alabama, which is one possibility, then we will have less drinking water supply to meet our future needs.

The more drinking water we use, the more sewage we produce. Treated sewage harms our rivers by over-fertilizing them. While modern sewage treatment systems take the solids and disease pathogens out of the water, what's left is super-organic – like a liquid version of the composted cow manure gardeners put on their roses. This leads to overblooms of harmful river and lake plants like algae that smother wildlife habitat and suck life-giving oxygen from the water.

For all these reasons, it is wise for us to get serious about drinking-water conservation, to achieve the greatest mileage out of the water supplies we already

have. This is similar to re-engineering cars and trucks to go further on the same tank of gas. Municipal drinking water systems and sewer systems require a tremendous amount of energy to treat, pump and pipe water. Within our homes it takes energy to heat our water. If we reduce our water use we will save a significant amount of energy, water and money.

Conserving drinking water will save us money in several ways – lower water bills, lower sewer bills (since sewer rates are based on the amount of drinking water we use), and lower costs to develop new water sources. Costs for development of new water sources would be passed through to the consumer.

(Leader: Write each of the three Stewardship of Creation objectives [left sidebar] on a separate piece of newsprint. Post the newsprint pages on the classroom wall. Save for Session 5.)

**Invite participants** to consider the following: As “fellow workers in God’s Creation,” how can we care for our watersheds in ways that reduce and/or buffer the impacts of global warming? Together, we can consider specific actions that could better protect our water resources from the impacts of global warming. Read aloud, in turn, the following opportunities. After each paragraph is read, pause and together choose the relevant category or categories for those particular actions. As time allows, consider personal, parish, and community-involvement possibilities to educate, to advocate, and for service.

### **Conserve drinking water**

**Turn off the water when you brush your teeth.** Pay attention to reducing water consumption in everyday activities. Reducing the amount of treated “drinking water” sources we consume on a daily basis reduces energy use and conserves limited drinking water sources. For example, reducing the amount of water used in flushing the toilet by only 10% would save enough water for doing the laundry and almost enough for drinking. Using a water-saving toilet can cut water usage almost 75%.

**When replacing appliances** such as washing machines or dishwashers, be sure to purchase Energy Star Certified products. For water use products such as toilets, faucets and showerheads, purchase WaterSense certified products. (See Resources for links to the EPA pages for each of these certification programs.)

**Use post-consumer recycled paper** or paper that is produced in a tree-free process. Producing paper from paper uses much less water than producing paper from trees. In addition, keeping trees keeps local temperatures cooler, and trees serve as carbon sinks.

**Eliminate the use of bottled water as much as possible.** Advocate finding ways to keep our public drinking fountains; then use these to fill and refill your earth-friendly water bottles. Most of Alabama has excellent tap water.

**Give top priority to recycling aluminum cans.** Their manufacture requires high volumes of water. To find out how to get

your workplace involved in recycling, in the Birmingham Area contact the Alabama Environmental Council. Purchase recycled aluminum foil and then use very sparingly.

### **Conserve rainwater**

Rain is too precious a resource to throw away, and there are many ways to harvest and filter it.

**Construct rain barrels and rain gardens** at home and on church grounds. The group could advocate for schools, businesses and public facilities to consider installing these highly effective yet low tech and modest-cost interventions. (See Resources for a link to directions for constructing rain barrels and rain gardens.)

**Downspouts can be connected to rain barrels**, and pavement runoff stored in ponds, providing water for landscape irrigation. Some industries collect rainwater for cooling, and save money. Green roofs absorb water. Impervious roofs and paving can drain to bioswales or rain gardens, which are concave, landscaped areas where runoff is filtered and soaks into the ground. It then travels slowly as groundwater, becoming cool and clean again, to replenish our rivers and lakes in dryer weather. There are many techniques for rain infiltration, which can reduce the size and cost of traditional storm drainage and restore health to our water resources.

**Join a state and a local watershed group.** You will learn about your watershed and about local and state water policies and guidelines. Work with a state group to advocate for water

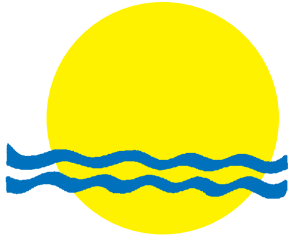
*Up to 70%  
of the water we take  
from rivers and groundwater  
goes to irrigation.*

*Food and agriculture  
are by far  
the largest  
consumers of water.  
They require  
perhaps 100 times more  
than we use  
to meet  
basic personal needs.*

Agriculture, Food and Water  
[www.unesco.org](http://www.unesco.org)

*The average North  
American uses nearly  
five times more fuel  
than their European  
counterpart.*

*Earth and Faith: A Book of  
Reflection for Action, 23*



*A dam  
on the Cahaba River  
was removed  
by a partnership  
that included  
a church,  
four universities,  
five environmental groups,  
and both State of Alabama and  
Federal agencies.  
We can save  
our biological legacy  
if we work together.*

See Resources for Marvel  
Slab Removal websites.

sustainability. Invite watershed leaders to address your Adult Education class.

**Plant trees** and save forest stands as a way to protect our watersheds and keep water on the land, rather than running fast to the river and adding to pollution and flooding. Preserving native trees also improves property values, contributes to healthy rivers, streams and lakes, and reduces global warming impacts. Identify trees and forest stands that should be saved in areas of new home or church facility construction. When planting, plant native trees, and low-water-needs yards and gardens.

### **Reduce energy use**

Every purchase is a vote! Reduce your consumption and choose your purchases thoughtfully. Water is required for production of goods and products, fuels are used in packaging and transportation, and landfills are needed for waste. Instead of shopping for recreation, visit a state and/or local park, garden at home, or explore area and state natural wonders as you learn about and experience the wonders of God's Creation in Alabama.

**Shop at your local** farmers' market, and buy from organic farmers whenever possible. Local produce requires less energy to reach your table. Healthy foods require healthy waters. (See Resources for a link to farmers markets across Alabama.)

### **Think and act globally**

Fumes from burning fossil fuels, whether from cars, homes, schools, businesses, or airplanes impact

water quality and global warming. See Consumers Guide to Carbon Offsets (<http://www.cleanair-cool-planet.org/ConsumersGuidetoCarbonOffsets.pdf>).

U. S. groups that tested well by the 2006 Guide's criteria for reducing or mitigating global warming pollution are: [www.climatestrust.org](http://www.climatestrust.org), [www.nativeenergy.com](http://www.nativeenergy.com), and [www.sustainabletravelinternational.org/document/op\\_carbonoffset.html](http://www.sustainabletravelinternational.org/document/op_carbonoffset.html)

**Support Episcopal Relief and Development** in their work for "Environmental Sustainability," goal #7 of the Millennium Development Goals. (See Resources for a link, and to order Bishop Blend coffee.)

**Connect what we are doing in Alabama** with what is happening in our companion diocese in Haiti through prayer as you work on rain barrel or rain garden installations at your church. Haiti is not only the poorest country in the Western Hemisphere, but it is semi-arid and has very little accessible water or clean drinking water. Send your donation for making rain barrels or digging wells in Haiti to the Diocese of Alabama with the notation: Haiti Water Project.

### **Group activities**

**Organize a church group** to go on a canoe trip on your local or area river. People come from around the southeast and across the country to canoe the Cahaba River and see the lilies blooming each year in May. [www.cahabariversociety.org](http://www.cahabariversociety.org). Inquire about the Cahaba River Society CLEAN program for church youth groups.

**Pursue training** in stream bio-monitoring through Alabama Water Watch. Go to <https://aww.auburn.edu/> and click on Living Streams Workshops. See this website for help in finding an AWW group near you, or call 1-888-844-4785.

**Consider your class forming** an Eco Team as suggested in Gershon's *Low Carbon Diet*. Notice the watershed/climate change connections. Go to: <http://www.empowermentinstitute.net/lcd/> Click on Cool-Community Tele-Training for information about a free two-hour online training course. Also see [www.theregenerationproject.org](http://www.theregenerationproject.org).

**Create a Certified Wildlife Habitat** on church grounds and/or at home, work or school. <https://secure.nwf.org/backyard/certify.cfm>.

**Investigate, and support** the development or continuation of a household hazardous waste collection center for your area.

**Lead a study group** on *Eradicating Global Poverty: Study Guide on Millennium Development Goals*, as a follow up course. Include human life style impacts. Each rector in the Diocese of Alabama has a copy. Also see <http://www.un.org/millenniumgoals/>

**Organize an Energy Audit** at home and/or at church. See our Task Force audit, *Save \$, Save the Earth: Energy Audit for Churches*, Educational Materials tab, online at [www.stewardsforcreation.org](http://www.stewardsforcreation.org).

**Lead a group to study** the Province IV Episcopal Bishops' Pastoral Letter on Care of Creation CD and Study Guide. See Task Force

website: Educational Materials, at [www.stewardsforcreation.org](http://www.stewardsforcreation.org).

### **Priorities: 10 minutes**

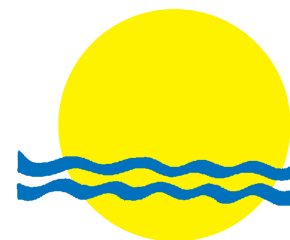
Give class members color sticky dots (available at office supply stores). Give each person 3 dots, one dot each of blue, green, and yellow. Each person can place their dots by the activities on the newsprint that are their 3 top choices, to indicate their choice for a parish activity for Care of Creation. Colors indicate choices:  
*Blue for rivers = #1*  
*Green for trees, plants, flowers = #2*  
*Yellow for Sun = #3*

Look at the charts, group similar activities, and see what selection is emerging. As a group, come to a consensus as to what activity you are choosing to implement in your parish. (If dots are not easily available, or if you have non-toxic markers, provide the class with a few sets of non-toxic blue, green and yellow markers [or colors of your choosing]. Participants can mark the newsprint with the 3 colors of markers instead of with the dots, as described above.)

### **Action: 5 minutes**

Between now and Session Five, in prayer and reflection, study and conversation, consider which activities you feel God is calling you to be involved with personally, in your parish, in your community and globally.

Consider the Task Force Mission Statement: Education, Advocacy, Service as you make your selections (sidebar page 4-2). Session Five will focus on refining our choices and making selections in preparation for a Care of Creation Covenant Blessing in Session Six.



### **Prayer**

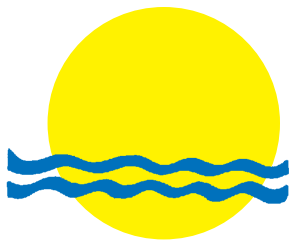
Hear again God's Care of Creation invitation from our opening prayer:

*Almighty God, in giving us dominion over things on earth, you made us fellow workers in your creation: Give us wisdom and reverence so to use the resources of nature, that no one may suffer from our abuse of them, and that generations yet to come may continue to praise you for your bounty; through Jesus Christ our Lord. Amen.*

BCP Prayer For the Conservation of Natural Resources, BCP p. 827, #41

### **Scripture Reading**

*Glory to God whose power, working in us, can do infinitely more than we can ask or imagine: Glory to God from generation to generation in the Church, and in Christ Jesus for ever and ever. Amen.* Ephesians 3:20, 21.



*25% to 40%  
of all bottled water in the US,  
including some major brands,  
is made from tap water,  
rather than spring water.  
Check the label.  
You can drink 40,000  
8-ounce glasses  
of already-purified tap water  
for the price of three  
\$1.50 bottles of spring water.  
Tap water is at least  
as safe as, if not safer than,  
bottled water.  
The plastic bottles  
fill up our landfills  
(adding to the need  
for unwanted landfills)  
and create air pollution  
(from trucks  
that transport the bottles).  
If you want filtered water,  
install a faucet filter.  
Celebrate Earth's  
Sacred Waters.*

## Resources: *Wading in the Waters*

### Conserving Drinking Water

<http://www.epa.gov/watersense/> This page gives information about water efficiency in the home and how to know which products meet efficiency standards. For some products that have achieved the Water-Sense credential, there are product names and serial numbers.

<http://www.epa.gov/watersense/quiz/index.htm> This site can be accessed through the above site and it is a cool interactive game, not unlike early video games. Your kids will love it. To win, maneuver through the maze, avoiding Sogosaurous, and answer correctly the water conservation questions at each stopping place.

<http://www.getwise.org/> The goal of this site is to help visitors learn ways to conserve water and energy by providing helpful savings tips, links to local resources and well-designed products. There is an interactive house tour that explains opportunities for water saving in each room of the house.

<http://www.waterconserve.org/> Water Conserve is a Water Conservation Portal dedicated to protecting and conserving drinking water and ecosystems worldwide - with a genuine Internet water search engine, constant water news and link tracking, and biocentric commentary.

### Conserving Rain Water

[http://www.cwp.org/Community\\_Watersheds/brochure.pdf](http://www.cwp.org/Community_Watersheds/brochure.pdf)  
This link goes to a site with directions for building rain barrels or installing rain gardens.

### Conserving Energy

[www.energystar.gov](http://www.energystar.gov) This is the site for the EPA Energy Star Certification program and has a wealth of information. Their nearly 100-page booklet, *Putting Energy Into Stewardship*, is a great resource for churches; *Energy Star Guide for Congregations*. Call 1-888-STAR-YES for your free copy.

<http://www.fma.alabama.gov/MapFarmerMarket.htm>. This link will let you click on the map of your county to see where there is a farmers market near you. You can also find U-pick farms and Community Supported Agriculture, where you can get a fresh veggie subscription.

Download the Sierra Club brochure on Bottled Water and share copies with friends, co-workers, parishioners. [http://www.sierraclub.org/committees/cac/water/bottled\\_water/bottled\\_water.pdf](http://www.sierraclub.org/committees/cac/water/bottled_water/bottled_water.pdf)

[www.greenlinepaper.com](http://www.greenlinepaper.com) This is a link to a company that sells recycled office paper as well as other eco-friendly products.

<http://earth911.org/water/> This site has a search capacity to look for recycling centers near you for a broad range of recycling needs. Type in

your city and a 50 mile radius and check for sites in your area. A parish project could be to partner with the Alabama Environmental Council – which runs a recycling center – to look for ways to increase our recycling opportunities throughout the diocese.

Jeffrey Langholz, Ph. D., and Kelly Turner *You Can Prevent Global Warming (and save money!) 51 Easy Ways* (Kansas City: Andrews McMeel Publishing, 2003). This book is practical, informative and an education to read. It provides links for further exploration.

#### **Advocacy for sustainable water resources**

<http://yosemite.epa.gov/water/adopt.nsf/by+state?SearchView&Query=Alabama> This page gives an extensive list of watershed protection groups both in and surrounding Alabama. As you scroll down you will discover groups in other states, some of which have no connection to Alabama. A few are connected through our common waters, so take a look and see what is there. People across the state can connect with each other in service and advocacy.

#### **Marvel Slab Removal Websites**

<http://www.nature.org/wherewework/northamerica/states/alabama/press/press1646.HTML>

[http://wkrq.iewatershed.com/index.php?pagename=news\\_050614\\_MarvelSlab](http://wkrq.iewatershed.com/index.php?pagename=news_050614_MarvelSlab)

[http://www.hec.usace.army.mil/misc/2004\\_COE\\_TNC\\_Conference/Partnership/downloads/COE-TNC\\_Partnership-Marvel\\_Slab\\_Dam\\_Removal\\_11-17-2004.pdf](http://www.hec.usace.army.mil/misc/2004_COE_TNC_Conference/Partnership/downloads/COE-TNC_Partnership-Marvel_Slab_Dam_Removal_11-17-2004.pdf)

#### **Think globally**

[http://www.er-d.org/programs\\_63386\\_ENG\\_HTM.htm](http://www.er-d.org/programs_63386_ENG_HTM.htm) This link will take you to the Episcopal Relief and Development web page addressing Goal 7 of the Millennium Development Goals: Ensuring Environmental Sustainability. Learn how the Episcopal Church is addressing this goal worldwide and how you can help.

You can begin by ordering Bishops Blend coffee, organic, shade grown, fair trade coffee. This helps to ensure environmental sustainability both by how the coffee is grown and by the fact that the farmers are paid a living wage and have the incentive to keep growing coffee this way. Use the following link to order.

[http://www.er-d.org/waystogive\\_63273\\_ENG\\_HTM.htm](http://www.er-d.org/waystogive_63273_ENG_HTM.htm)

*Everything that is  
in the heavens,  
on the earth,  
and under the earth,  
is penetrated  
with connectedness,  
is penetrated  
with relatedness.*

Hildegard of Bingen (1098-1179)