

Green Congregation Challenge

LEVEL ONE	
1. Preach an environmental stewardship sermon annually	Done, often around Earth Day. Speakers have included Jim Antal (MACUCC), our Senior Pastor Rev. John Zehring, and members Bill Schroeder, and Jane Gossard. We also conducted a Saturday evening worship service with an environmental focus.
2. Offer a book/bible study on stewardship of creation	Faith Forums (adult education group) led study of the "Green Bible" in 2010.
3. Form a church "green team"	Formed in fall of 2006. Several members had been working on "green" projects at church before the group was established.
4. Show environmental films	Showed film with Tom Brokaw based on Al Gore's work.
5. During children's sermon, encourage kids to get parents to engage in environmental disciplines	Annelise Mesler, who grew up in the church and works as an environmental consultant, did children's sermon, fall of 2012.
6. Include a green column in the newsletter	We have provided information and invited participation in numerous events through our newsletter many times since 2006.
7. Invite environmentally focussed speakers	Speakers have included Lori Segall (Mass. Climate Action Network), Vince Maraventano (Mass. Interfaith Power and Light), Bill McKibben (350.org), Greg Sebaski (Andover Green Advisory Board), and representatives from several alternative energy companies.
8. Assist members in reducing junk mail, catalogs, credit offers, etc.	(Not done yet)
9. Examine energy use by the church and make plan to reduce it	Energy audit was conducted by Rise Engineering through Bay State Gas in 2007. We have been working to implement the recommendations since then. We have also encouraged church members to schedule energy audits at home.
10. Keep radiators/heating ducts/fridge coils clean	Our Sexton does this routinely.
11. Make environmental/conservation resources available to members	We have conducted workshops on alternative energy sources for home use. We have provided information through our newsletter, website, and during coffee hour on Sundays. We have a "green gifts" table at coffee hour during Advent with products that save energy and other resources. We provide handouts at most of our events.
12. Recycle paper/bottles/cans	We have provided labeled recycling bins next to trash cans in our kitchen, fellowship hall, Sunday school classrooms, meeting rooms, and offices. We collect Sunday bulletins in baskets as people leave the Sanctuary each week. Our Sexton puts these materials out for curbside collection each week.
13. Put office machines on power strips and unplug rarely used appliances	Coffee makers and paper folding machine are unplugged when not in use. Copiers go into "sleep" mode. Main office computers must stay on all night for backup. This year we replaced old computers with new, more efficient models.

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14. Reduce hot water temp to 120 degrees	Our Sexton does this routinely.
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<p>15. Organize and/or participate in an event sponsored by 350.org</p>	<p>In October of 2009, we rang our bell 350 times as part of a world-wide awareness event by led by 350.org. There were more than 5200 such events that day. We also taught our Sunday School classes that day about the significance of 350, and sent articles and photos that were published in two local papers. Bill McKibben was the featured speaker at our own "Green Week" town-wide event in 2010, during which we worked with other local environmental groups, school groups, and local business to raise awareness about climate change and call for solutions. This was part of the "10-10-10" event by 350.org. Since then, we have attended several 350.org rallies in Boston and other nearby cities, and we attended the KXL Pipeline protest in Washington, DC, in February.</p>
<p>LEVEL TWO</p>	
<p>1. Install and use programmable thermostats</p>	<p>We have a computer-based control system that governs heating, lighting, and security systems. Rooms are only heated when they will be used. The system also governs air conditioning in the new wing of the building, built in 2005. The Sanctuary and 1956 portions of the building are not air-conditioned.</p>
<p>2. Replace incandescent bulbs with CFL's</p>	<p>Done in 2007 and maintained since then. We have also sold CFL and LED bulbs to church members for home use.</p>
<p>3. Insulate/weather-strip church pipes, walls, ceilings, doors, water heaters</p>	<p>Our pipes are insulated, and we added insulated doors during renovations of the old building and construction of our new wing in 2005. The new wing walls and ceilings are well-insulated. Insulation was added to the attic of the Parsonage in 2009, particularly where an attic ceiling fan was found to be letting heat escape.</p>
<p>4. Shift church communications from paper to electronic media</p>	<p>Monthly church newsletter and weekly updates are sent by email, with links to further information on our website. Paper newsletters are only sent to households that do not have email. Larger groups within the church can also set up email communications centers (e.g. The Women's Connection, the South Church Players, etc.) Readings from our Lenten booklet were emailed on a daily basis this year, and fewer paper copies were printed.</p>
<p>5. Shift to reusable dishes and utensils in church and ban styrofoam</p>	<p>We use and wash mugs, spoons, and serving dishes for coffee hour every Sunday and have banned styrofoam. We encourage use of washable dishes for other events. We used compostable "paper" plates for the church picnic last June.</p>
<p>6. Install low energy LED exit and emergency lights and signs</p>	<p>We have done this.</p>
<p>7. Every Sunday ask who in the past week contacted Congress to demand effective climate legislation</p>	<p>We have done this sporadically, but not on a weekly basis.</p>

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8. Install energy efficient fluorescent lights/ballasts	The 2005 wing was built with efficient fixtures, and old fixtures in the 1956 wing were replaced during renovations. (We still need to replace the fixtures in our Fellowship Hall.)
9. Institute "walk/bike/carpool" to church days	We did this in conjunction with the 2011 MIPL "Moving New England" rally and 350.org "Moving Planet" event.
10. Shift to organic landscape and lawn care	A small portion of lawn in front of the church is fertilized with chemical fertilizer, but most of our grounds, including a large cemetery, are not fertilized. Pesticides are not used. We do water the small front lawn, but only when it has not rained. We compost the leaves from the lawn and cemetery, and then apply the compost to augment soils where needed.
11. Shift to environmentally sensitive cleaning products	We use recycled paper towels and toilet paper for bathrooms and kitchen. We also use cloth towels in the kitchen and launder them. We use cleaning solutions that are environmentally sensitive.
12. Develop a car pool system for church activities	The Deacon's care and calling committee arranges rides to church events, medical appointments, and other events for anyone in need. Many groups in church arrange carpools for their events (e.g. Youth group activities, senior activities, Walk for Hunger volunteers, Day of Service work crews, etc.)
13. Use blinds to help regulate temperature	The tall windows in our Sanctuary have wooden shutters that remain closed unless the Sanctuary is in use, to preserve heat and keep pew cushions from fading. The sanctuary is not air-conditioned, so the shutters help keep it cool in summer. Staff members use blinds and curtains to regulate temperature in offices. Given the large number of groups that use meeting and class rooms, we have not tried to govern the use of blinds in these areas.
14. Become a member of MIPL	We joined in 2007, shortly after forming the Green Team. One of our Green Team members, Bill Schroeder, has just been appointed to the MIPL Board of Directors.
15. Purchase "clean " electric energy for the church	Although we have not done this through our regular electricity provider (National Grid), we have recently installed PV panels on our roof that will supply most of our electricity. (See last item in level 3.)

LEVEL THREE	
1. Establish a community garden at the church	Our grounds include a large, historical cemetery, a nursery school playground, and a small front lawn. Thus, there is not much room for a community garden. We are located in a suburban community where many people have large enough yards at home to grow food. We have encouraged home gardeners to contribute excess food to local food pantries. Our middle-school "Summer of Service" program takes participants to help harvest food at a local farm that also goes to local food pantries. Last fall we sponsored a Harvest potluck dinner and asked participants to bring vegetarian fare and use locally grown produce in their dishes. Some Green Team members have been involved with a vegetable garden at Andover High School, run by students, and supported with compost made from school cafeteria wastes. We have volunteered in the cafeteria to help the students sort their lunch waste into compost, recyclables, liquids, and trash, with significant reductions in the volume of trash.
2. Replace old furnaces, heaters, air conditioners	We have replaced the 1940's era oil-fired burner in the boiler that heats the older wing of the church with a modern, efficient natural gas-fired model. The boiler is turned off in summer, when hot water is provided by a small hot water heater. The older wing is not air conditioned, except for one window unit in the church office. This was replaced with an efficient model during recent renovations. The 2005 wing has separate heating and central air-conditioning systems with modern technology.
3. Install "Energy Star" appliances	Appliances in the Parsonage kitchen were replaced in 2009, including an Energy Star refrigerator. (Church kitchen and youth room kitchen still need work.)
4. Install low flow water fixtures or tankless water heaters	The new wing was built with low-flow toilets, and toilets in the older wing were replaced with low-flow units during the recent renovations.
5. Install solar hot water heaters	(Not done yet)
6. Replace inefficient windows and doors	We have installed storm windows on all of our windows, and installed insulated doors during recent renovations. We keep internal doors closed between the old and new wings to stabilize their separate heating and cooling systems.
7. Use xeriscaping for lawns and landscaping	As described above, our cemetery and landscaped beds are not irrigated. Plants in these areas survive through dry weather. The small front lawn is watered only when we lack rain.

<p>8. Advocate for local, state, national energy efficiency policies</p>	<p>We have participated in rallies by 350.org, MIPL, and other organizations. We have written, and have encouraged the congregation to write, to government officials and have provided information about various issues. We have worked with Town officials to influence decisions about public building design and operation. We have supported the compost/recycling program at Andover High School, and the spread of this program to other schools in town.</p>
<p>9. Assist and encourage members to adopt "green " steps at home and work</p>	<p>We planned and carried out a weekend family retreat focussed on global warming, with a speaker from the Union of Concerned Scientists who provided extensive information. About fifty members participated. Each family brought a "science fair" display about a topic that interested them, including composting, water use reduction, alternative energy sources for home use, organic and local food, etc. We brought the science fair materials back to church and displayed them in Fellowship Hall for the full congregation. We have provided a green Christmas presents table every Sunday during Advent, selling energy-efficient and reusable/sustainable products. We have held workshops on installing solar collectors at home. Our green Harvest Dinner focussed on local food sources, including community supported agriculture. We have provided information about scheduling home energy audits and purchasing "clean" electric energy at home.</p>
<p>10. Join with other sustainability groups to facilitate community action and advocacy</p>	<p>We have participated in events with Mass. Interfaith Power and Light, and one of our Green Team members is now on their board. We have worked with the Town of Andover Green Advisory Board to influence the design of a new school, the installation of solar panels at an existing middle school, and other Town projects. One of our Green Team members is on AGAB. We have worked with the Environmental Club and Sustainable Andover internship program at Andover High School to set up and run the compost/recycling program in the school cafeteria and other environmental projects. We have volunteered at Zero Waste Day, a town-wide event to recycle household goods. We participated in the interfaith Climate Revival in Boston on April 27, 2013.</p>
<p>11. Share your creative ideas and results with others in the Spotlight newsletter</p>	<p>We submitted an article about our solar panel project on May 6, 2013.</p>
<p>12. Plant deciduous trees on south and west sides of church</p>	<p>There are already mature trees south and west of the church. Fortunately, they are not tall enough to block the solar panels on our roof. We have lost trees during storms on the north side of the church in recent years, and have planted new trees to replace them. The cemetery also has mature trees.</p>

<p>13. Partner with Mass Releaf in a public tree-planting project</p>	<p>We helped to plant trees on Campagnone Common in Lawrence in 2006 through a Mass Releaf program, partnering with Groundworks Lawrence and our Youth Group. We also planted 300 trees in April 2011 as part of our 300th anniversary celebration. Some larger trees were planted on church grounds and at the Parsonage. 100 seedlings were given to children in Sunday School to plant at home, and we worked with Groundworks Lawrence again to plant 200 seedlings in Lawrence.</p>
<p>14. Review church investments for environmental impact</p>	<p>(not done yet)</p>
<p>15. Install PV panels for electricity</p>	<p>Last fall, in partnership with Great Green Enterprises and Sunbug Solar, we installed solar panels on the church roof. GGE and Sunbug financed and installed the system and will own and operate it for 20 years. The church buys the electricity generated at a discounted rate. The system is a 52.32 kW system consisting of 160 high-efficiency 327-watt PV panels. We expect it to generate about 92% of our annual electricity use, and to reduce our CO2 output by about 53 tons annually. During the first 6 months of operation (November 2012 through April 2013), the panels produced 27,120 kWh of electricity, saving 23 tons of CO2 emissions. We expect production in the summer months to be greater. Several church members have also installed solar panels at home.</p>

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