

**ECOFAITH EDUCATIONAL ACTION ITEMS  
 Table of Contents**

**REQUIRED ITEMS .....2**  
 Include environmental content in at least 6 sermons or religious education classes .....2  
 Display signs showing energy efficiency action items that the Green Team has accomplished .....2  
**HANDS-ON ACTION ITEMS .....3**  
 Organize a worship building workday .....3  
 Organize a field trip for the Congregation .....4  
 Rent a Kill-a-Watt Meter or other energy audit tool and demonstrate its usage .....5  
 Check congregation members’ tire pressure.....6  
 Encourage congregation members to conduct a personal energy audit-related activity .....7  
 Conduct an environmentally-themed fundraiser .....9  
 Host a community yard sale or book or clothing swap .....12  
 Encourage lending or giving between congregation members.....13  
 Host a Bike-to-Worship Day .....14  
 Conduct an informal waste audit .....15  
 Organize a trip to a local environmental event .....17  
 Start a Composting Program at your place of worship .....18  
**PRESENTATION ACTION ITEMS .....19**  
 Integrate environmental materials into faith education classes .....19  
 Invite a guest-speaker to a service, class, or study group .....20  
 Host a movie showing .....21  
 Invite congregation members to present a demonstration or talk.....22  
 Conduct a discussion section amongst congregation members .....23  
 Present a skit demonstrating an environmental action .....24  
 Ask congregation to conduct an environmental action relevant to their worship activities .....25  
**DISPLAY ACTION ITEMS.....26**  
 Include environmental facts in bulletins.....26  
 Exhibit a poster, sign, or display regarding an environmental issue or action.....26

## **REQUIRED ITEMS**

### **Include environmental content in at least 6 sermons or religious education classes**

Congregation leaders must incorporate environmental content in at least six sermons or congregation-wide religious education classes/groups.

### **Display signs showing energy efficiency action items that the Green Team has accomplished**

Many of the most energy-efficient actions we take (both in retrofitting our homes and worship buildings, and the lifestyle changes we make) are the least visible to outsiders. Because education is a vital piece to this program, only implementing these action items without letting other know is ineffective in instructing those around us about action options for themselves.

Using the sign templates provided, customize and post informative yet visually-pleasing signs for each worship building action item you've accomplished in an area that is near where the action took place but visible to the public (Example: post a sign about insulating your furnace on the door outside of the closet your furnace is kept). This will serve as an educational tool for your congregation members as well as a way to show that you are proud to be taking steps towards energy efficiency and environmental stewardship. Post both the English and Spanish versions of these signs if your congregation is bilingual.

## HANDS-ON ACTION ITEMS

### Organize a worship building workday

*Big Picture Problem:* U.S. residential and commercial buildings account for 38% of total U.S. carbon dioxide emissions, or nearly 8% of total global carbon dioxide emissions.<sup>1</sup> These emissions are greater than the emissions of any other country except China.<sup>2</sup>

*Solution:* This activity reduces greenhouse gases by increasing energy efficiency in the worship building while fostering a sense of community and pride of place. In addition, the hands-on experience may help induce people to take similar actions in their own homes.

*Details:* Use congregation volunteers for non-technical efficiency upgrades to get congregation actively involved in the faith community's Path of Sustainability. This work day should occur after the Green Team conducts the energy audit for the church, which can provide guidance for what energy-efficiency work can be done. Activities may include: changing light bulbs, cleaning or installing new light covers, cleaning windows and screens, painting walls (if necessary), cleaning ventilation and refrigerator coils, weather-stripping or caulking windows and doors, plugging electronic equipment into smart strips, fixing leaky faucets, and setting out recycling bins. Anyone in the congregation with specialized HVAC or other facility-related skills may volunteer to replace or install equipment if needed.

#### *Tying It Together:*

- Videos:
  - Energy efficiency how-to videos
    - Description: Provides background on the importance and benefits of energy efficiency. Also gives examples of how people can implement energy-saving techniques in their own homes.
    - <http://www.duke-energy.com/indiana/savings/energy-efficiency-videos.asp>
  - Big Savings through Integrative Design
    - Description: Hour-long talk by Amory Lovins describing the energy savings that can be achieved through building energy efficiency and integrated design. Appropriate for audiences with an already strong understanding of environmental topics and energy efficiency.
    - [http://fora.tv/2009/05/01/Amory\\_B\\_Lovins\\_Big\\_Savings\\_Through\\_Integrative\\_Design](http://fora.tv/2009/05/01/Amory_B_Lovins_Big_Savings_Through_Integrative_Design)
- Movies:
  - *An Inconvenient Truth*
    - Nobel Peace Prize winner Al Gore describes the problem of climate change.
    - Available at the Santa Barbara Public Library:  
[http://www.blackgold.org/polaris/search/searchresults.aspx?ctx=1.1033.0.0.7&type=Keyword&term=an%20inconvenient%20truth&by=KW&sort=RELEVANCE&limit=TOM=dvd&query=&page=0#\\_pos1](http://www.blackgold.org/polaris/search/searchresults.aspx?ctx=1.1033.0.0.7&type=Keyword&term=an%20inconvenient%20truth&by=KW&sort=RELEVANCE&limit=TOM=dvd&query=&page=0#_pos1)
  - *Energy Crossroads*
    - Describes the energy crisis and provides concrete solutions for individuals.
    - Not currently available at the Santa Barbara public library, but can be purchased online: <http://www.energyxroads.com/buydvd.html>. The DVD is \$25, but a downloadable version is only \$10.

### **Organize a field trip for the Congregation**

*Big Picture Problem:* People can become disconnected with the natural world around them when living in the city and thus disconnected with how their everyday actions may have negative impacts upon the environment.

*Solution:* These activities help to connect congregants back to the earth and ecosystems around them and can reveal to them the cumulative impact of both their own and others actions. Additionally, they can help educate congregants about small actions they can take that increase positive impacts.

#### *Suggested Destinations & Details:*

- Creek clean-ups: See where improperly disposed of trash, car washing soap, motor oil, etc. ends up if not disposed of correctly.
  - City of Santa Barbara, Creeks Division contact Liz Smith [lsmith@santabarbaraca.gov](mailto:lsmith@santabarbaraca.gov) or (805) 897-2606.
  - City of Goleta, Everett King [eking@cityofgoleta.org](mailto:eking@cityofgoleta.org) (805) 961-7576.
  - County of Santa Barbara, Clean Water Project, Fray Crease [fcrease@cosbpw.net](mailto:fcrease@cosbpw.net) or (805) 568-3546
- Tree planting: Make a difference by off-setting some CO2 emissions while adding more green to your town!
  - Goleta Valley Beautiful (805) 685-7910
- Beach clean-ups or water quality monitoring:
  - Santa Barbara Channelkeeper, (805) 563-3377, or [info@sbck.org](mailto:info@sbck.org).
- Restoration work: Help plant native species, eradicate invasive species, catalog what kinds of plants and animals can be found in our local ecosystems.
  - Santa Barbara Audubon Society, Darlene Chirman (805) 692-2008 or email at [darlene.chirman@gmail.com](mailto:darlene.chirman@gmail.com).
- Learn about Community Supported Agriculture (CSA): See what local farms and local food has to offer and learn about the advantages of eating locally.
  - Fairview Gardens CSA, Goleta. Guided tours start at \$100, and they put on numerous classes, workshops and events (from Intro to Bee-Keeping to Learning to Compost) throughout the year. For information, call (805)967-7369 or email [info@fairviewgardens.org](mailto:info@fairviewgardens.org).
- Groups such as Habitat for Humanity of Santa Barbara County periodically sponsor green building tours. They will likely give a discount to a large faith group, and all proceeds benefit the organization.
  - To learn more, visit [www.sbhabitat.org](http://www.sbhabitat.org).
- Visit our local wastewater treatment plant (<http://www.sbwater.org/FieldTrips.htm>)

### Rent a Kill-a-Watt Meter or other energy audit tool and demonstrate its usage

*Big Picture Problem:* Energy can be a vague, intangible concept that members may find difficult to conceptualize<sup>3</sup>. But energy use in residential and commercial places accounts for over 40% of all energy use in the United States<sup>4</sup> and contributes to greenhouse gases accumulating in the atmosphere.

*Solution:* The Kill-a-Watt identifies hotspot items to determine where the largest electricity loads are in the worship building or in a congregant's home. The Kill-a-Watt can help to make the abstract concept of energy real in showing how a specific action reduces electricity use (i.e., changing refrigerators or light bulbs). Reducing energy use helps to reduce contributions of greenhouse gases to climate change.

*Details:* What is a Kill-a-Watt? A Kill-a-Watt is a device (shown in picture) that you plug into an outlet and then plug an appliance into, like a refrigerator, TV, stereo, washing machine, or light fixture. The device tells you how many kilowatt-hours the device uses so that you can know how efficient the appliance really is and how much the device is costing you in electricity per month. For example, if you have a very old refrigerator, it could use up to 1400 kWh per year. The device shows you how much energy it uses and also estimates yearly costs. By contrast, if you plug the device into a new refrigerator, it may show only 350 kWh per year, costing significantly less per year. The device is a great way to show where large electricity loads are taking place and where to focus on energy efficiency projects through the appliances/lights that take up the most electricity.



Where can you get a Kill-a-Watt?

- Santa Barbara CEC: send an email to [commrel@cecmail.org](mailto:commrel@cecmail.org) with subject line: Kill a Watt asking to borrow it
- Southern California Edison: they have one through their Tool Lending Library, visit: <http://www.sce.com/b-sb/energy-centers/agtac/tour-agtac/tool-lending-library.htm> or call (800) 772-4822 to borrow
- Kill-a-Watts are available through Amazon or at Home Depot (the Kill-a-Watt EZ retails for about \$20 each) if you would like to purchase one

**Check congregation members' tire pressure**

*Big Picture Problem:* Transportation accounts for over a third of U.S. carbon dioxide emissions.<sup>5</sup> Of transportation greenhouse gas emissions, nearly 60% come from personal vehicle use.<sup>6</sup>

*Solution:* One-third of all personal motor vehicles have tires that are not properly inflated, reducing gas mileage by an average of 3.3%.<sup>7</sup> If every passenger car in the U.S. had properly inflated tires, we could reduce greenhouse gas emissions equivalent to the total emitted by the entire country of Finland.<sup>8</sup> Holding this event will not only increase the number of cars with properly inflated tires but help encourage individuals to always keep their tires inflated.

*Details:* As a group - before or after service - encourage congregation members to check their tire pressure and help them inflate their tires to the correct pressure. You can provide pressure gauges and a car-powered air pump for congregation members to inflate their tires on the spot. Take the opportunity to inform them that California law requires service stations to provide free compressed air to its customers, so they can check and inflate their tires every time they fill their gas tank.<sup>9</sup> In addition, let them know that deflated tires seriously reduce the vehicle's handling capabilities, can cause irreparable damage, reduce tread life, and force the engine to work harder.<sup>10</sup>

**Encourage congregation members to conduct a personal energy audit-related activity**

*Big Picture Problem:* Congregants may not know where to begin with energy efficiency projects; everyone assumes solar panels will provide them with the energy they need, but energy efficiency projects, though less “interesting” than solar, can reduce a households’ electricity significantly.

Additionally, The items we buy, actions we take, and choices we make every day all make an impact on the planet by using valuable natural resources. If everyone on earth lived a similar lifestyle to the average American, we would need five Earth’s worth of land and natural resources to be sustainable.

*Option 1:* Encourage congregants to order an energy efficiency starter kit from SoCalGas and/or conduct the SCE home energy survey

*Solution:* Helping congregants understand how they can make a difference in reducing energy use in their own home will empower them to take action. These two tools are free and can help not only reduce energy use but will also reduce costs for congregants as their utility bills will go down.

*Details:*

- The Gas Company will send any residential customer a free energy efficiency starter kit, which includes three faucet aerators and a low-flow showerhead. You will need your address and the last four numbers of your gas bill. Visit: [http://www.socalgas.com/residential/EE\\_kit\\_promo/](http://www.socalgas.com/residential/EE_kit_promo/)
- SCE has a home energy survey to help residents who either rent or own how to best conduct energy efficiency projects in their home based on their energy use. Visit: <http://www.sce.com/Tools/Residential/HomeEnergySurvey.htm?from=redirect> or see attached PDF of the survey. Online, there is a quick 5 minute survey as well—the longer survey takes 15 minutes or more but will provide more detail as how to how to increase energy efficiency

Finished print surveys should be sent to:  
Home Energy & Water Efficiency Survey  
Profile Processing Center  
155 Grand Avenue, Suite 500  
Oakland, CA 94612

- Ideas for how to make this work in church are: to print the link in your bulletin, or have people bring their gas/electric bills to service and have a computer set up where you aid congregants in filling out the form. For SCE’s Survey, you can print copies of the survey and have people conduct them either in church or at home. Provide stamped envelopes to reduce barriers to participation. You could perhaps provide a small prize (a CFL? Faucet aerators?) to those who complete and return their surveys.

*Option 2: Have congregation members calculate their personal carbon footprint online and report on the results with others in their faith community.*

*Solution:* Developing an awareness of our ecological impact on our planet is the first step towards making lifestyle choices to improve our carbon footprint. Learning what aspects of our lifestyle have the biggest impact on our carbon footprint can help us make Sharing the results with fellow congregation members encourages accountability and can also motivate positive lifestyle choices. To encourage participation, consider offering congregation members an environmentally-friendly reward (such as a CFL or reusable shopping bag) for calculating and reporting on their carbon footprint.

*Details:* There are several ecological footprint tools available online, however we feel the most informative and accurate is from the Cool Climate Network:

<http://coolclimate.berkeley.edu/uscalc>

Another popular calculator option can be found at:

[http://www.footprintnetwork.org/en/index.php/GFN/page/personal\\_footprint/](http://www.footprintnetwork.org/en/index.php/GFN/page/personal_footprint/)



### **Conduct an environmentally-themed fundraiser**

*Big Picture Problem:* Though virtually all energy-efficient upgrades pay for themselves over their lifetimes, upfront costs can be difficult. Additionally, educational costs are often paid by the educator, while participants are the ones who benefit from lower utility bills. Covering these cost gaps can be difficult for organizations with restricted budgets.

*Solution:* Environmentally-focused fundraising can be a useful way of raising extra money while being educationally valuable on its own. Several companies produce reusable shopping bags, water bottles, and other products that can be customized with an organization's logo, allowing the organization to resell the items to its members for a profit. Selling reusable items is also an excellent opportunity to educate people about the environmental effects of disposable items.

*Details:* Many companies work with fundraising organizations by helping them develop customized, resellable products. Some information is listed below to give a general idea of price and purchase quantity requirements, but due to the high variability in costs based on item, customization, color, etc, exact numbers will vary dramatically.

Design a contest or raffle to encourage energy efficiency by congregants:

- Have congregants come up with mini-plans to save greenhouse gas emissions (you could potentially use this in conjunction with the CEC pledge); winners can get prizes or gifts (see raffle section for prize ideas)
- Hold a month-long challenge to see how many people can reduce their electricity use from the same month last year. Ideas can include turning off lights, unplugging unused appliances (like the microwave, toaster, and TV when not in use), upgrading to CFL light bulbs, etc. At the end of the month, have them bring in their electricity bills from this year and last year; they win a prize if it is 10% lower (in kWh).
- Create a contest for kids that include how they will pledge to lower their GHGs or energy use; have them create a plan and talk about it with the family. The contest can include drawing the plans, which can put on display. The kids can win the prizes for use in their home (with their parent's help, of course).

Here are some ideas for how to hold a raffle:

- Hold a raffle where people buy \$1 tickets to potentially win any one of the following gifts. Use the raffle money to buy the items. Try to get some of the items donated (by businesses or by willing congregants).  
Prizes and gifts can include (many of these are low-cost items):
  - CFL bulbs (60 W equivalent, bought in bulk)
  - Kill-a-Watt meter
  - Tire pressure caps ([http://www.amazon.com/Perfect-Solutions-Tire-Pressure-Valve/dp/B00332EZ1C/ref=pd\\_sbs\\_auto\\_3](http://www.amazon.com/Perfect-Solutions-Tire-Pressure-Valve/dp/B00332EZ1C/ref=pd_sbs_auto_3))
  - Stainless steel water bottles
  - <http://www.discountmugs.com/nc/category/sports-bottles/>

- Reusable bags (see reusable bags section of this list for ideas)
- Clothes drying rack ([http://www.amazon.com/Moerman-88347-Laundry-Solutions-Outdoor/dp/B002KAOOXW/ref=sr\\_1\\_27?ie=UTF8&qid=1288734350&sr=8-27](http://www.amazon.com/Moerman-88347-Laundry-Solutions-Outdoor/dp/B002KAOOXW/ref=sr_1_27?ie=UTF8&qid=1288734350&sr=8-27))
- Hot water heater blankets
- Weather stripping/caulking material

Groups can purchase large quantities of reusable bags from several companies.

One bag at a time: <http://www.onebagatatime.com/>

- Price range: \$1-\$1.25 for a single NWPP bag with One Bag at a Time logo, \$85 for a pack of 100. Jute and cloth bags also available with higher prices, quantity discounts
- Customizable bags available with minimum quantity 100, price dependent on size of order and specified image

Bags on the run: <http://www.bagsontherun.com/>

Chico bags: <http://www.chicobag.com/t-fundraising.aspx>

Discount Mugs Promotional Products: <http://www.discountmugs.com/>

- As a larger company, prices are much lower but customization and customer service is more bureaucratic

Reusable water bottles can be purchased in large quantities from several companies.

Klean Kanteen: <http://www.kleankanteen.com/cobrand/cobrand.php>

- Can be customized with a logo with a minimum order of 72 bottles. Price depends on quantity but non-profits get a discount; the discounted price for 72-174 single-color logo classic-style bottles is \$9.90-\$14.85 per bottle depending on size.
- Because quantity pricing is available for custom orders but not for non-custom orders, it is more cost-effective to order 72+ bottles with a logo than it is to order the same number without a logo

Discount Mugs Promotional Products: <http://www.discountmugs.com/>

- As a larger company, prices are much lower but customization and customer service is more bureaucratic

Below is some useful information that can be given to members to encourage the purchase and use of reusable plastic products:

According to Californians Against Waste, a non-profit research and advocacy group, Californians use approximately 19 billion single-use plastic shopping bags every year. That comes out to an average of over 500 bags for every single person in the state—and the EPA estimates that only 5% are recycled.

All that waste adds up. According to Heal The Bay, the state spends \$25 million per year to dispose of plastic bag waste in landfills, and over \$300 million per year in litter cleanup. The city of San Francisco estimates that it spends \$8.5 million per year specifically on plastic bag litter, which comes to a cost of 17 cents per bag.

Plastic single-use water bottles cause similar issues. According to the New York Department of Environmental Conservation, Americans purchased 31 billion bottles of water in 2006 and only

about 10% were recycled. 18 million barrels of oil are needed to replace those bottles that are not recycled, leading to 800,000 metric tons of additional greenhouse gas emissions. Even if bottles are recycled, the energy involved in transporting and processing recycled material is still a major economic and environmental impact.

Plastic waste, including water bottles and shopping bags, is a particular threat to coastal areas like Santa Barbara. Debris collects on beaches and can be ingested by wildlife, causing potentially life-threatening health effects. Tourism, an important source of revenue for the community, suffers when beaches are littered. Currents and gyres can cause ocean debris, 90% of which is plastic), to accumulate in certain areas. Midway Atoll is one such site. It acts as a home and breeding ground for many marine animals, some critically endangered. 40% of albatross chicks born at the atoll die with their stomachs full of plastic trash, despite living thousands of miles from any significant human settlement.

You can help reduce the incredible amount of plastic garbage by using reusable bags when you do your shopping and a reusable water bottle in place of single-use plastic bottles. Many grocery stores provide small discounts or other incentives to customers who bring their own bags, and refilling a water bottle is certainly more affordable than continuously purchasing new ones.

### **Host a community yard sale or book or clothing swap**

*Big Picture Problem:* In 2006, U.S. consumers accounted for 32% of global expenditures on goods and services but only 5% of the global population.<sup>11</sup> If everyone consumed like Americans, Earth could only sustain 1.4 billion people, but today there are 6.8 billion people in the world.<sup>12</sup> Meanwhile, in the U.S. the amount of waste each person creates has increased from 2.7 to 4.6 pounds per day.<sup>13</sup>

*Solution:* The U.S. EPA reports that “the most effective way to stop this trend is by preventing waste from being generated in the first place.” Hosting a community yard sale or swap keeps useful items out of the landfill while preventing the manufacture of new products.

*Details:* Host and help advertise a community yard sale or clothing/book swap. Proceeds from the yard sale can go back to congregation members, or the yard sale could be used as a fundraising event for the religious community. Tips for hosting a clothing swap can be found here:

[http://www.ehow.com/how\\_2079586\\_host-clothes-swap-party.html](http://www.ehow.com/how_2079586_host-clothes-swap-party.html). Excess clothing or books at the end of the swap can be donated. Consider pairing the event with a viewing of The Story of Stuff ([www.storyofstuff.com](http://www.storyofstuff.com)).

### **Encourage lending or giving between congregation members**

*Big Picture Problem:* The largest portion of our personal carbon footprint tends to be from the goods and services we purchase. This is because each item we buy, eat, and use contains what is called “imbedded energy”. This is the energy it took to grow, manufacture or produce every ingredient or piece that went into the final product.

*Solution:* Encourage lending between congregation members using a lending library instead of buying new. We tend to purchase items that we don’t use every day, but if we share these items amongst our friends and neighbors, we can lessen the amount of stuff we own. This not only improves our carbon footprint but can save us money as well!

*Details:* This can be accomplished within your religious community using a message board, email list or Google document where people can post items they are willing to share as well as items they are looking to borrow.

Habitat for Humanity operates a facility called ReStore at 6725 Hollister Avenue in Goleta. Here they serve local families by selling building materials, fixtures and furniture at prices that make it possible for families to renovate their homes. Visit [www.sbhabitat.org/restore.php](http://www.sbhabitat.org/restore.php) to learn more.

There is also a county-wide organization called The Freecycle Network that operates in a similar fashion. Go to <http://groups.freecycle.org/sbfreecycle/description> to register with the Santa Barbara Freecycle group. One man’s trash is another man’s treasure!

Consider pairing the event with a viewing of The Story of Stuff ([www.storyofstuff.com](http://www.storyofstuff.com)).

### **Host a Bike-to-Worship Day**

*Big Picture Problem:* Approximately 30% of US carbon dioxide emissions come from transportation.<sup>14</sup> At the same time, 82% of trips that are less than five miles from home are made using a personal motor vehicle. These short trips create more pollution per mile, because car engines are less efficient in their first few minutes of operation since they are still warming up.<sup>15</sup>

*Solution:* Bicycle riding can have a significant effect on reducing climate change. Cars are a major source of greenhouse gas emissions, particularly due to the combined effect of many short trips. Fortunately, the shorter the trip, the more feasible non-motor transportation becomes. Walking or riding a bike for trips that are five miles or less eliminates a significant portion of transportation-related emissions, saves money on gas and maintenance, and increases overall health!

*Details:* The League of American Cyclists promotes a Bike-to-Work Week and Bike-To-Work Day in May, which is National Bike Month. Congregations can adapt this into a Bike-to-Worship program, whether in May or at a more convenient time. The League offers some suggestions for groups looking to develop such an event:

- Route mapping assistance: Traffic Solutions provides a bike map for Santa Barbara County at <http://www.trafficsolutions.info/bikemap-south.htm>, as well as instructions for how to receive a paper copy. The Santa Barbara Bicycle Coalition offers commuter safety tips at <http://www.sbbike.org/commute/how-to.html>. Help interested congregation members prepare for bike commuting by making sure they are properly equipped and pick a safe route.
- Bike mentors: If anyone in the congregation regularly bikes or walks to worship, ask if they are willing to answer questions or help encourage participation from other members.
- Commuter convoys: Determine if there are any central gathering points where members can meet up and ride together.
- Energizer rally: Gather riders or walkers together either after they arrive at the worship building or before they leave to go home and offer recognition and encouragement. This is also a helpful way to involve non-participants who are present at the weekly service.
- Challenges and incentives: Offer prizes for special accomplishments such as families that ride together, team development, distance traveled, and general participation.
- Inclusive participation: Congregation members with mobility issues could be invited to participate by walking or carpooling.

For more information, see <http://www.bikeleague.org/>

### **Conduct an informal waste audit**

*Big Picture Problem:* Americans recycle or compost only 33% of their waste.<sup>16</sup> The remaining garbage is either land-filled or incinerated, contributing to groundwater contamination<sup>17</sup> and air pollution.<sup>18</sup>

*Solution:* Conducting a waste audit will give the congregation a better understanding of its own waste disposal habits. The audit can identify specific problems (e.g. lack of recycling in a particular room or a recyclable item repeatedly being thrown away) that can then enable the Green Team to produce appropriate signs or educational materials.

#### *Details:*

Supplies needed:

- Puncture-resistant gloves
- Tarps or plastic sheets
- Scale (optional)

The following are suggested steps to completing an informal waste audit:

1. Identify two or three people to lead the waste audit team. It may be helpful to have a member of the facilities or maintenance staff as a leader or, at minimum, a volunteer.
2. Identify a group of other interested volunteers for the waste audit team.
3. Conduct a walk-through of the worship buildings, noting all areas where waste is disposed. Pay close attention to: the lobby area, lounges, kitchens, cafeteria, individual offices and desks, and copy and fax machines.
4. At the end of a service day or, if the trash is taken out on a regular schedule, before a scheduled trash pick-up, the waste audit team should physically sort through the trash.
  - a. Team members should wear puncture-resistant gloves and old clothing.
  - b. Spread out a large plastic sheet and dump the day's waste onto it.
  - c. Make sure to keep recyclables separated from food that might contaminate them.
  - d. Record quantities or weight of items in recycling, composting (if applicable), and trash waste streams.
5. Identify items in the trash waste stream that can be recycled or composted (if applicable).
6. Design a strategy to increase the recycling (especially for hazardous materials) and composting rates. Consider the following ideas:
  - a. Post signs near recycling and trash bins about what can be recycled.
  - b. Provide bins for recycling of batteries, electronics, and light bulbs.
  - c. For every trash can, ensure there is a recycling bin next to it. Many organizations and companies provide a small garbage can and large recycling bin to indicate the relative importance of each.
  - d. Post images of landfills near trash cans to provide a visual reminder of where garbage goes.
  - e. Near paper towel dispensers and copy paper areas, post signs that remind people of the resources the paper consumed. Create your own signs or purchase stickers from <http://thesecomefromtrees.blogspot.com/>.

For more information on conducting a waste audit, please visit the following resources:

- [http://www.scdhec.gov/environment/lwm/recycle/green\\_hospitality/pubs/waste\\_audit.pdf](http://www.scdhec.gov/environment/lwm/recycle/green_hospitality/pubs/waste_audit.pdf): Information and printouts to help guide you through a waste audit and identifying wastes.
- <http://www.wasteaudittool.com/>: Online tool that provides detailed guidance and software to help you conduct a waste audit. Requires registration (free).

For more information on the waste policies in your area, please visit the following resources:

- City of Santa Barbara: <http://www.santabarbaraca.gov/Recycling-Trash/businesses.htm>
- County of Santa Barbara: [http://www.lessismore.org/Programs/bsnss\\_recycling\\_complete.html](http://www.lessismore.org/Programs/bsnss_recycling_complete.html)
- City of Goleta: <http://www.cityofgoleta.org/index.aspx?page=419>
  - If your collector is Allied Waste Services: <http://www.alliedwastesantabarbara.com/Pages/FAQs.aspx>
  - If your collector is MarBorg Industries: <http://www.marborg.com/recyclecollection.html>

For visuals of landfills, please visit the following links:

- [http://climatex.org/media/images-image-image/Garbage\\_landfill.jpg](http://climatex.org/media/images-image-image/Garbage_landfill.jpg)
- <http://swamplot.com/wp-content/uploads/2007/04/landfill-landscape.jpg>
- [http://www.iadb.org/idbamerica/images/sep05\\_landfill.jpg](http://www.iadb.org/idbamerica/images/sep05_landfill.jpg)
- Many more available through images.google.com



### **Organize a trip to a local environmental event**

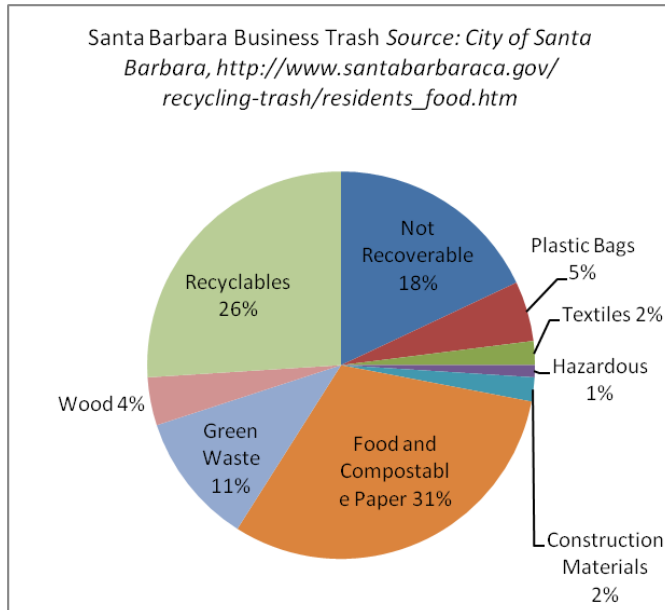
*Big Picture Problem:* Living in a city and going through our daily lives can create a disconnect between our communities and our environment. We can forget that our actions can negatively impact the environment and lack awareness of the environmental resources that surround us.

*Solution:* Organize an outing to participate or attend a local environmental event, such as the Earth Day Festival put on by the CEC (Community Environmental Council), Solar SUNday, International Day of Climate Action, or a local foods event such as the SOL (Sustainable, Organic, Local) Foods Festival. You will learn more about the importance of acting as environmental stewards, connect with like-minded individuals within your community, and have fun doing it!

#### *Details:*

- To learn more about Santa Barbara's Earth Day Festival, visit [http://www.cecsb.org/index.php?option=com\\_content&task=view&id=80&Itemid=110](http://www.cecsb.org/index.php?option=com_content&task=view&id=80&Itemid=110) .
- To learn where there are local events on the International Day of Climate Action, visit [www.350.org](http://www.350.org). This event usually falls in mid-October.
- To learn when the next Santa Barbara Independent's Green Shorts Film Festival is, visit [www.independent.com](http://www.independent.com). This event is held in conjunction with Earth Day in April.
- To learn when the next SOL Food Festival will be, visit <http://www.solfoodfestival.com/>. This event will likely be held in October.
- To check out Santa Barbara's Solar SUNday, visit [www.cecsb.org](http://www.cecsb.org). This event will likely be held in July or August. The CEC is a great resource for any new environmental events that are scheduled as well!

**Start a Composting Program at your place of worship**



**Big Picture Problem:** A huge proportion of trash in Santa Barbara is made up of food, green waste, or other compostable materials. When these materials are deposited in a landfill, the lack of oxygen prevents natural decomposition so they last indefinitely, taking up a huge amount of space and increasing the need for more landfill area.

**Solution:** Backyard composting allows natural materials like food scraps, coffee filters and yard waste to decay into a nutrient-rich soil-like material that reduces landfill waste and can be used to naturally and safely improve garden health.

**Details:** Depending on individual needs, a compost system can range from a simple

aerobic pile to somewhat more complex worm bins. The City of Santa Barbara maintains an informational website on composting and provides a booklet on composting procedures, techniques and resources that can help your community design and implement a workable system. For more information, see:

- [http://www.santabarbaraca.gov/recycling-trash/residents\\_food.htm](http://www.santabarbaraca.gov/recycling-trash/residents_food.htm)
- [http://www.santabarbaraca.gov/recycling-trash/pdf/Composting\\_Booklet.pdf](http://www.santabarbaraca.gov/recycling-trash/pdf/Composting_Booklet.pdf)
- [http://www.lessismore.org/Programs/back\\_yard\\_composting.html](http://www.lessismore.org/Programs/back_yard_composting.html)

Maintaining a composting system lessens the community’s waste and can be an excellent way to teach congregation members about the sources of landfill inputs and how they can reduce their contributions. Once a system is in place, demonstrations can be given and the resulting compost can be used in the church planters. This is especially effective when paired with a community garden, which several ECOFaith institutions have already developed.

## PRESENTATION ACTION ITEMS

### **Integrate environmental materials into faith education classes**

*Big Picture Problem:* The U.S. Environmental Protection Agency (EPA) advocates for “environmental literacy” for all ages.

*Solution:* The EPA offers the following reason for engaging in environmental education: “A primary desired outcome of environmental education programs is environmental literacy. Through the many programs funded and led by EPA, people of all ages and backgrounds are being provided multiple experiences that foster development of the combination of knowledge, skills, and attitudes required to be environmentally literate. Because environmental education is a process, it cannot in itself improve the environment, such as by enhancing local air or water quality. Instead, environmental education provides the capability and skills over time to analyze environmental issues, engage in problem solving, and take action to sustain and improve the environment. As a result, individuals are more capable of weighing various sides of an environmental issue to make informed and responsible decisions.<sup>19</sup>”

*Details:* Here, we focus on children’s educational resources because adult education topics are already integrated throughout the Path of Sustainability. Given the widely varying thoughts and attitudes on children’s education, we offer a sample of secular educational resources that may inspire children’s education at your particular congregation. However, this list is not exhaustive of all of the resources available. Many religious groups offer potential children’s activities and approaches to the environment; we suggest conducting a web search to find more resources or contacting ECOFaith member congregations for resources they have used in the past.

This is a rich resource searchable by topic and by age group. It offers several lesson plans and could be incorporated: DOE Lesson Plans for K-12: <http://www1.eere.energy.gov/education/lessonplans/>

A good portal from the Environmental Protection Agency (EPA) for explaining what climate change is and ways to help: <http://www.epa.gov/climatechange/kids/>

Another portal for activities from the EPA: <http://www.epa.gov/kids/index.htm>. Even more EPA resources for teachers introducing sustainability into the classroom (resources from K-12): <http://www.epa.gov/greenkit/student.htm#k-8>

Energy Star Kids for Parents and Teachers: [http://www.energystar.gov/index.cfm?c=kids.kids\\_index](http://www.energystar.gov/index.cfm?c=kids.kids_index)

Pew Center Kids Page for Climate Change—offers simple explanations of climate change and actions to reduce human effects: <http://www.pewclimate.org/global-warming-basics/kidspage.cfm>

For middle school children, a video produced by the EPA that explains how climate change affects wildlife and wetlands. <http://www.globalchange.gov/resources/educators/toolkit/video>

Some resources specific to Judaism that could be adapted for other religions: <http://www.jewcology.com/search/index/tag:Classroom%20education#Idea+Box> (an extensive list of

resources mostly targeted towards older children that include environmental advocacy, learning how to save water, reducing food waste, etc.)

**Invite a guest-speaker to a service, class, or study group**

*Big Picture Problem:* If we are not aware of our resources or the environmental problems that we face and/or create, how are we supposed to take steps to fix them? It is unlikely that we knowingly do things that harm the earth. What is more likely is that we have not been educated or given the tools to change these actions.

*Solution:* Having an engaging expert from the environmental field come speak to your congregation can provide the motivation and know-how to begin making a difference in our homes and communities.

*Details:*

- Southern California Edison has a large speakers' bureau available to lecture on topics such as electric vehicles, smart meters, economic assistance programs, energy conservation, and alternative & renewable energy. To contact Southern California Edison to book a speaker or learn more about available speakers and lecture topics, visit <http://www.sce.com/CommunityandRecreation/edison-community/speakers.htm>.
- Ecospeakers.com is a speakers' bureau that provides a large variety of lecturers on topics such as sustainable communities, green design & building, energy efficiency, climate & warming, water resources, pollution & toxics, wastes & recycling, and many others. To learn more, visit [www.ecospeakers.com](http://www.ecospeakers.com).

## Host a movie showing

*Big Picture Problem:* People need more than just printed material to change behavior<sup>20</sup>.

*Solution:* Offering vivid information via media helps people to retain environmental messages<sup>21</sup>.

Ideas for movies (both online and for rent/purchase/borrow):

- Vampire Power Awareness: explains what vampire power is (the power that electronics use even when they are not turned on but still plugged in) and offers ways to reduce vampire power <http://www.youtube.com/watch?v=mNcHUrg9EQY&feature=share>
- The Story of Stuff movies: <http://www.storyofstuff.com/>
- These include the Story of Electronics, which shows how companies make electronics to be “designed for the dump”, the Story of Stuff, a 20-minute video on the consumer culture of America and where it goes when we throw it away, the Story of Cosmetics and how they are toxic, the Story of Bottled Water which explains how we don’t need bottled water in the US, and the Story of Cap and Trade, which explains the basics.
- <http://greenenergytv.com/watch.php?v=233&c=7> funny video about personal ac that people can change and what would happen if they did something about it
- A Farm for the Future: explores peak oil and its effect on agriculture (originally seen on the BBC’s Natural World series) as well as ways to deal with the problem.  
Watch at: <http://www.grinningplanet.com/embed/sustainable-farming-video/a-farm-for-the-future.htm>
- Kilowatt Ours (<http://www.kilowattours.org/>) is a movie about energy use and its effect on the environment as well as how energy efficiency, conservation and renewable energy can help to alleviate climate change.
- Renewal (<http://www.renewalproject.net/>). This DVD can be ordered and is a video about interfaith efforts to be good stewards of the environment. The movie is 90 minutes long or can be divided into 8 segments, each its own story, on topics such as

Grinning Planet also has a large list of environmental movies by category at:

<http://www.grinningplanet.com/6001/environmental-movies.htm>. Categories include energy, food/nutrition, gardening, water, and trash/waste management. You can tailor the movie towards the topic you would like to discuss. Some of these movies can be found online, while others can be purchased online.

Additionally, Interfaith Power & Light has a suggested list of movies at:

<http://interfaithpowerandlight.org/resources/films/>

**Invite congregation members to present a demonstration or talk**

*Big Picture Problem:* While it can be difficult to convince people that environmental issues are important, it is often even harder to get them to actually change their habits even after they have learned the issues. The person must first believe they have both the responsibility and power to act. Lack of time, money, or ability or even just not knowing where to start can hamper even the most well-intentioned individuals and lead to inaction.<sup>22</sup>

*Solution:* Research shows that people are significantly more likely to trust and be affected by information that comes from reliable sources they are socially connected to, like friends, family or community members.<sup>23</sup>

*Details:* If your congregation has experts in certain areas, like car mechanics, electricians, repairmen, utility workers or city officials, they may be ideal for leading discussions on home or vehicle improvements. Some topics that could be covered include how to check and fix tire pressure, how to clean filters to improve efficiency, what to check in order to identify energy waste, programs the city has developed for residents, etc. Information coming from a trusted community is more likely to help congregation members get past initial stumbling blocks so they can implement changes.

**Conduct a discussion section amongst congregation members**

*Big Picture Problem:* Social support and group interaction is an integral part of changing behavior<sup>24</sup>.

*Solution:* Organizing small, short discussions between congregants helps to create a social network of environmental behavior and lets the congregation know that they are not alone in working towards environmental goals.

*Details:* Ideas include:

- Have congregants talk to their neighbor for a minute during the “announcements” section or whenever convenient about:
  - Ways they can strategize to drive less, or to
  - Ways to not buy brand-new things (i.e., thrift shops, sbfreecycle, Craigslist, trading); encourage other ideas and brainstorming
  - Ways to find locally sourced gifts/crafts/food (i.e., farmer’s market, local artists they know, etc.)
  - Places within walking distance of their house that they could walk and not drive to, or how to “cluster” errands better so that they need to use the car less
  - Actions from the pledge that they are taking or plan to take
- At the end of the two-minute discussion, have people raise their hands to offer their ideas to the whole congregation.

**Present a skit demonstrating an environmental action**

*Big Picture Problem:* Many individuals may not trust external sources of information about environmental problems and so may never act to improve their environmental performance.

*Solution:* Research shows that messages coming from friends, family, or community members can increase the credibility of the information.<sup>25</sup> Moreover, a skit is more vivid and personalized than other communication formats, traits that also increase a message's effectiveness.<sup>26</sup>

*Details:* Use your creativity and the Behavior-Changing Techniques document provided to design a captivating skit. The skit should demonstrate an environmental problem or solution. Ideas include how to wrap your hot water tank with a heater blanket, how to hang dry your laundry, what items can be recycled, actions from the pledge, or a myriad of other ways to increase energy efficiency and environmental behavior within the home!

For information on how to create a skit, you can visit: <http://www.wikihow.com/Make-a-Skit>.



**Ask congregation to conduct an environmental action relevant to their worship activities**

*Suggestion 1: Encourage congregation members to recycle/reuse/share your weekly bulletin*

*Big Picture Problem:* Solid waste that goes into our landfills has several negative environmental impacts. Most importantly, as the landfilled waste decomposes, it releases methane, a greenhouse gas that has a global warming potential (GWP) of 23 times that of CO<sub>2</sub> into the atmosphere. Therefore, when we divert waste from the landfill by recycling, reducing, reusing and composting, less dangerous methane will be emitted into our atmosphere. Additionally, as landfills space fill up, additional land must be converted from open space into sprawling landfills. Because it is very difficult to site landfill (due to the hazards of transporting and storing waste), new landfills can be much further away and thus require waste service providers to travel longer distances to deposit their waste. At times waste service providers must use trains to transport waste these especially long distances.

*Solution:* Do your part to encourage recycling in all aspect of your religious communities' services and events. This can be as simple as a written or spoken reminder to congregation members to share their bulletins and recycle them after the service has concluded.

*Details:* Provide recycling bins. Call your local service provider to see if you are eligible for free recycling bins.

- City of Santa Barbara local service providers are:
  - MarBorg: (805) 963-1852
  - BFI: (805) 965-5248
- Santa Barbara County (unincorporated areas) service providers are:
  - MarBorg: (805) 963-1852
  - Allied Waste/Browning-Ferris: (805) 965-5248
  - SBC Business Recycling Program: (805) 882-3616

*Suggestion 2: Create a carpooling system*

*Big Picture Problem:* Transportation accounts for over a third of U.S. carbon dioxide emissions.<sup>27</sup> Of transportation greenhouse gas emissions, nearly 60% come from personal vehicle use.<sup>28</sup>

*Solution:* Congregation members save 1 pound of carbon dioxide for each mile of driving each member eliminates. Furthermore, by carpooling, congregation members spend more time together and help to foster a sense of community.

*Details:* Set up a carpool board in a prominent, visible location within the worship building. Announce the carpooling system to the congregation and encourage members to use it. Instructions for creating a carpool board can be found here: [http://www.ehow.com/how\\_5934542\\_create-carpool-board.html](http://www.ehow.com/how_5934542_create-carpool-board.html) (though tailored for a work environment, the instructions can be adjusted for faith communities). Consider providing a map of the area with pushpins and labels so congregation members can indicate their location on the map. In addition, Santa Barbara County provides an online carpool system for

County residents: <http://www.trafficsolutions.info/>. The faith community can also leverage this system to find carpooling partners within the congregation.

## **DISPLAY ACTION ITEMS**

### **Include environmental facts in bulletins**

*Big Picture Problem:* Energy efficiency and environmental actions need to be communicated frequently so that people are exposed to the problems and the solutions.

*Solution:* Communication best practices show that information is more likely to be retained when it is repeated often.<sup>29</sup> Providing succinct tips to the congregation can help to show them specific actions to take to increase energy efficiency and environmental awareness.

*Details:* Try to put a new tip in each weekly bulletin in a section entitled “Did you know?” For the most effective way to communicate the tip, have the pastor or a congregant announce the tip aloud as well. Please see the file on the CD called “10a\_Sustainability\_Tips.docx” for a complete list of “Did You Know Sustainability Tips.”

### **Exhibit a poster, sign, or display regarding an environmental issue or action**

*Big Picture Problem:* Not all congregation members will be at all worship and education events and may miss important, pertinent environmental information.

*Solution:* The poster is a permanent display reminding people about an environmental issue that is important to your community.

*Details:* Create a visually-stimulating poster, sign, or display that discusses an environmental action about which the Green Team is passionate. Consider focusing on action items from the pledge that have low pledge or participation rates. In addition, including a call to action on the display can help congregation members feel empowered to change their behavior for the greater good.

- 
- <sup>1</sup> <http://buildingsdatabook.eren.doe.gov/TableView.aspx?table=1.4.1>
- <sup>2</sup> Dietz, T., Gardner, G.T., Gilligan, J., Stern, P.C., & Vandenberg, M.P. (2009). Household actions can provide a behavioral wedge to rapidly reduce US carbon emissions. *Proceedings of the National Academy of Sciences* 106(44): 18452-18456.
- <sup>3</sup> Parnell, R. and Larson, O.P. (2005). Informing the development of domestic energy efficiency initiatives: an everyday householder-centered framework. *Environment and Behaviour*, 37(11), 787 – 807.
- <sup>4</sup> <http://www.eia.doe.gov/aer/consump.html>
- <sup>5</sup> <http://www.eia.doe.gov/oiaf/1605/ggrpt/>
- <sup>6</sup> <http://www.epa.gov/climatechange/fq/emissions.html#q5>
- <sup>7</sup> Individual Carbon Emissions: The Low-Hanging Fruit (retrieved October 7, 2010, from <http://uclalawreview.org/pdf/55-6-6.pdf>)
- <sup>8</sup> Personal calculation: 33% \* 60% \* 33% \* 3.3% = 0.22%; Finland's share of global carbon dioxide emissions are available at [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_carbon\\_dioxide\\_emissions](http://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions).
- <sup>9</sup> <http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISSdocID=54824612569+0+0+0&WAISSaction=retrieve>
- <sup>10</sup> <http://www.greencarcongress.com/2009/03/california-arb-adopts-tire-pressure-regulation-to-reduce-ghg-emissions.html>
- <sup>11</sup> <http://blogs.worldwatch.org/transformingcultures/wp-content/uploads/2009/04/Chapter-1.pdf>
- <sup>12</sup> <http://blogs.worldwatch.org/transformingcultures/wp-content/uploads/2009/04/Chapter-1.pdf>
- <sup>13</sup> <http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw07-rpt.pdf>
- <sup>14</sup> EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2008 Executive Summary
- <sup>15</sup> <http://www.bikeleague.org/resources/why/environment.php>
- <sup>16</sup> <http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw2008rpt.pdf>
- <sup>17</sup> <http://oceanworld.tamu.edu/resources/environment-book/groundwatercontamination.html>
- <sup>18</sup> <http://www.ecomed.org.uk/content/IncineratorReport.pdf>
- <sup>19</sup> <http://www.epa.gov/enviroed/basic.html>
- <sup>20</sup> Campbell, M., et al. (2000). "A Systematic Review of the Effectiveness of Environmental Awareness Interventions." *Canadian Journal of Public Health*, 91:2, 137-143.
- <sup>21</sup> Stern, P. (1986). Blind Spots in Policy Analysis: What Economics Doesn't Say About Energy Use. *J. of Policy Analysis and Management*, Vol. 5, No. 2, 200-227.
- <sup>22</sup> Blake, J. (1999). Overcoming the 'value-action gap' in environmental policy: Tensions between national policy and local experience. *Local Environment*, 4(3), 257-278.
- <sup>23</sup> Staats, H., Harland, P., Wilke, H. (2004) Effecting durable change: A team approach to improve environmental behavior in the household. *Environment and Behavior*. 36(3): 341-367
- <sup>24</sup> Staats, H., Harland, P., & Wilke, H. A. M. (2004). Effecting Durable Change. A Team Approach to Improve Environmental Behavior in the Household. *Environment and Behavior*, 36, 341-367.
- <sup>25</sup> Parnell, R. and Larsen, O.P. (2005) Informing the Development of Domestic Energy Efficiency Initiatives : An Everyday Householder-Centered Approach. *Environment and Behavior* 37: 787.
- <sup>26</sup> Stern, P. (1986). Blind Spots in Policy Analysis: What Economics Doesn't Say About Energy Use. *J. of Policy Analysis and Management*, Vol. 5, No. 2, 200-227.
- <sup>27</sup> <http://www.eia.doe.gov/oiaf/1605/ggrpt/>
- <sup>28</sup> <http://www.epa.gov/climatechange/fq/emissions.html#q5>
- <sup>29</sup> Campbell et al. (2000).