

Environmental Assessment

An environmental assessment is required as one of the first steps in the Green Sanctuary process. Conducting an environmental assessment provides a snapshot of where the congregation stands with respect to environmental behaviors. The assessment establishes a baseline or starting point for further action. In addition to an energy audit, the congregational assessment must include an assessment environmental behaviors/activity in the four Green Sanctuary focus area:

1. Worship and Celebration
2. Religious Education - adult and children
3. Environmental Justice
4. Sustainable Living - grounds, parking lot, location, transportation, facilities, kitchen, food, recycling/reuseables, office and cleaning supplies, energy use, investment policies, congregation policies, congregation committees, etc.

See Chapter 3 "Conducting an Environmental Assessment" in the [UUA Green Sanctuary Manual](#) for additional information.

The environmental assessment must include a report of 1) a professional energy audit, and 2) congregational assessment of environmental activities in the four focus areas.

Methodology Used:

To conduct the assessment, members of the Green Sanctuary Team reviewed issues of the Quest, the newsletter of UUCR from 2008 to 2011 and met with members of relevant church committees and church staff to verify the information and obtain additional information.

UUCR has much to be proud of as outlined below. The assessment has also served to identify opportunities for further action. The assessment began in June 2011 shortly after the affirmative congregational vote at the annual meeting in May 2011 to pursue Green Sanctuary and was completed in November 2011.

Assessment Findings:

Part I - Professional Energy Audit

In March 2007, UUCR had an energy audit conducted by the Greater Washington Interfaith Power and Light (GW IPL) group that was offering free audits at the time. A written [energy survey report](#) was provided to the church. Building 5 (Sanctuary and lower level classrooms) was not included in the survey since it was constructed in 2005 and designed with energy conservation in mind.

A summary of actions taken from 2007 to 2011 that address items identified in the 2007 GWIPL energy survey is listed under Sustainable Living below.

Part II - Congregational Assessment

Listed below is a summary of the assessment for each of the areas covered under the Green Sanctuary program.

I. Worship and Celebration

Assesses integration of environmental awareness and the Seventh Principle "Respect for the interdependent web of all existence of which we are a part" in worship as spiritual grounding for care for the environment. A summary of activities from 2008 to 2011 to address the following three questions in the GS Manual include the following:

1. ***How are environmental awareness and Earth wisdom integrated into Sunday worship?*** (Consider sermon topics, music, readings, meditations, and so on.)

Two or three adult worship services per year are devoted primarily to an aspect of respect for the environment. Sermon topics have included creation theology, contradictions of winter, protecting flower pickers, all are connected, moral leadership (the story of Wangari Maathai), environmental justice, celtic traditions, climate change, nature poetry, etc. Other services frequently include music, a reading, or meditation related to the environment. The Ingathering service at the beginning of the church year always includes a water ceremony with reference to the sacred aspects of water. The church year concludes with the annual Flower Communion and celebration of nature through flowers.

Children's worship also focuses on an aspect of the environment for one or two worship services per year, especially around Earth Day.

2. ***What alternative and seasonal worship programs, such as solstice and equinox celebrations, does your congregation regularly provide?***

A special evening intergenerational service celebrating the Winter Solstice has been a long tradition at UUCR. An evening service celebrating the Autumnal Equinox was started in 2010; celebration of the Spring (Vernal) Equinox began in 2008; and celebration of the Summer Solstice was added in 2011.

3. ***What other worship or spiritual practices have been used to help deepen your connections with "the interdependent web of all***

existence”? (Examples might include a weekly or monthly eco-spirituality vespers service, or a covenant group with a deep ecology theme.)

Earth Day in April is regularly celebrated with an environmentally themed service followed by our annual all church grounds and building clean up day where members and friends of all ages gather to care for our little piece of the earth. Beginning in 2010, we have participated in UU Ministry for the Earth’s 40/40/40 Earth Day campaign that provides practical ways for people to make personal commitments to help the environment.

A rededication of our newly landscaped Memorial Garden was held after a Sunday service in June 2010, with everyone gathering near the garden.

A blessing of the animals has been held on a Wednesday evening in May for the last several years.

Artwork from local artists, arranged by the Aesthetics Committee, regularly adorns the spaces adjacent to the Sanctuary. Some of the artwork, which changes every six weeks or so, celebrates various aspects of nature. The Sanctuary has large glass windows allowing for enjoyment of nature while attending the service.

II. Religious Education

Assesses programs and activities that help children and adults understand their place in nature and the interconnectedness of all life. A summary of activities from 2008 to 2011 to address the following four questions in the GS Manual include the following:

- 1. What age-appropriate lessons and activities are used to help children understand their place in nature and the interconnectedness of all life? In what ways does your religious education programming help children learn how caring for the Earth relates to our Unitarian Universalist faith?**

Care of the environment was chosen as the theme for the Summer 2011 RE program. Len Taylor, a master teacher, wrote a new curriculum *Caring for Our Earth* for preschool – 1st Grade. *Keepers of the Earth*, Native American stories and environmental activities is used as the curriculum for 2nd through 8th grade on a three year rotation schedule. Senior High students watched and discussed movies with an environmental theme during the Summer 2011.

RE classes go outside to observe the signs of spring, plant seeds, hang bird feeders, take nature walks to look for signs of animal life, insects, pick up trash from the small stream at the edge of the property. The classes have enjoyed visits from naturalists and persons who bring animals. The sixth grade class sponsors a

collection of old towels for donation to the local Humane Society shelter to express their care and concern for animals.

- 2. What adult programs and classes are offered to explore environmental themes and related faith issues?** (Examples may include ongoing or one-time classes, special lectures and panel discussions, film festivals, field trips, book discussions, and other programs that appeal to different learning styles.)

Wednesday evening adult education programming known as Wonderful Wednesday has regularly included programs on the environment. Programs have included a book discussion on *Unbowed* by Wangari Maathai regarding tree planting in Kenya; a video and discussion of Van Jones delivering the Ware lecture about human rights and the environment at the 2008 General Assembly; presentations on environmental advocacy by a representative from the Chesapeake Climate Action Network (CCAN); solar energy for your home; wind energy 101; showing and discussion of documentary film *Poisoned Waters* and *Food, Inc*; presentation on tourism for sustainable development in Senegal; presentation on 350.org's Day of Action on 10/10/10.

An adult education program on Offshore Wind by a representative of the Chesapeake Climate Action Network was held after the service on 1/16/11 to educate people about legislation introduced in the Maryland legislature to build a wind farm off the coast of Maryland that would generate clean energy and provide green jobs. The program was advertised to the public and was attended by thirty people including three Maryland legislators.

- 3. Has your congregation offered intergenerational learning experiences that encourage children and adults to learn these lessons from each other?** If so, what themes and activities did they include?

The annual Do It Day held around Earth Day is an opportunity for children and adults to work together to care for the church grounds and buildings. Persons of all ages work together to pick up downed tree limbs and sticks, plant flowers, wash windows, etc.

As part of the summer 2009 RE theme of *Making A Difference*, the church collected items for health kits for migrant workers and books for migrant children in Virginia and viewed the film *Children of the Fields* to learn about child labor and environmental health hazards experienced by migrant farm workers. Children and youth assembled the kits that were delivered by a church family.

The 4th, 5th, and 6th grade RE classes have sponsored fundraisers during the adult coffee hour to purchase pet food for the Humane Society.

III. Environmental Justice

Assesses current and recent environmental justice activities concerned with the ecological health of human communities and nonhuman communities. A summary of activities from 2008 to 2011 include the following:

Beginning in 2009, a one week senior high-adult service trip to Habitat for Humanity in Garrett County, Maryland was organized to put our faith in action by helping to build affordable and energy efficient homes in this rural part of the state. Approximately 20-30 teens and adults participate each summer. To assist with the purchase of green building supplies to make the homes more energy efficient, UUCR made a \$5,000 donation to HFH Garrett County from the Social Justice Capital Fund in 2009. The fund is now exhausted.

IV. Sustainable Living

Assesses day-to-day practices that affect the congregation's use and management of natural resources. A summary of activities from 2008 to 2011 include the following:

1) Energy Use and Management

a. Source of energy

- Electricity is purchased from the local power company PEPCO under a commercial rate service rate schedule - (Non-Residential-MGT-LV IIB). The church was able to negotiate a favorable rate for this utility several years ago. The electricity is primarily from coal with 5% generated from renewable energy. Major use of electricity is for lighting, air conditioning, computers, and appliances. There are a total of four refrigerators (1 Energy Star in upstairs kitchen in Bldg 1, 1 Energy Star in Lower Level Bldg 5, 1 in Bldg 2 used by ECC nursery school, 1 in Bldg 3 used by RCNS nursery school). There are a total of ten computers/servers used by the church plus 2 computers in Bldg 2 used by ECC nursery school, and 1 in RCNS nursery school.
- Gas is purchased from the local gas company, Washington Gas. Major use of gas is for furnaces and hot water heaters.

b. Energy consumption patterns (from utility bills)

- Analysis currently being conducted.

c. Practices and habits that affect energy consumption In response to recommendations from the 2007 GWIPL audit, the following actions have been taken.

1. Moved most professional and administrative staff into Building 4, and out of Building 1, reducing week-day heating and cooling needs. One room was kept as office space in Bldg 1. There are three heating and cooling zones in Bldg 1 controlled by separate thermostats so the office area and non-office area in Bldg 1 can be set individually.
2. **Lighting** Many lights have been changed so that more energy efficient bulbs and fixture are used. For example, installed new LED exit signs in all locations; in locations with non-LED exit signs, lowered the bulbs from 7-watt to 3-watt; replaced 36 120 W bulbs in "the cove" in Founders Hall with 4 65W flood lights; replace T12 florescent fixtures with electronic ballasts and T8 bulbs as old units fail.
3. *Recommendation for further improvement:* The lighting in Building 1 (Founders Hall) presents a particular challenge due to the large number and varying vintage of lights. A free lighting audit and estimate, such as the one provided by a partnership between GWIPL and DMF Energy Group, is recommend to assess if a professional retrofit of UUCR building's lighting and would save energy and utility costs.
 - **Thermostats** Installed programmable, semi-locking thermostats set at recommended heating and cooling temperatures in all buildings. Semi-locking controls allow users to change temperature for short period of time only and then thermostat reverts to pre-set level, saving valuable energy in rooms/buildings that are not constantly occupied.
 - **HVAC** Purchased and installed new energy efficient heating and air conditioning system for Building 1 in 2009 to replace 45 year old system and for Buildings 2 and 4 in 2007 when 43 year old system failed.
 - **Windows and doors** Replaced two large entry doors to Building 1 with new, more energy efficient doors. Purchased and installed energy efficient double paned windows and doors in Buildings 2 and 3 to replace single paned windows and doors. The entry doors to Buildings 2, 3 and 4 have not yet been replaced. Weather stripping has been installed on all exterior doors, including those in Building 5.

- **Window coverings** Installed sun shades on south facing large windows in new Sanctuary to block sunlight and save energy in summer as necessary. Installed blinds on windows in Building 5 Lower Level classrooms to block sunlight in summer and save energy.
4. **Appliances** Purchased new Energy Star refrigerator to replace pre-1983 refrigerator in kitchen; purchased new Energy Star dishwasher for the lower level kitchenette and moved the Hobart commercial dishwasher to the main kitchen. Hobart is a high-efficiency dishwasher that runs 3-minute wash cycles and turns off automatically when not in use. Replaced original 1986 gas and electric stoves in kitchen. The RCNS nursery school purchased and installed a dishwasher in Bldg 2.
 5. **Insulation** Water pipes in outdoor furnace room in Building 2 have been insulated. Insulation has also been placed on all of the water heaters. Insulation in ceiling has been examined previously and found sufficient, however should be re-checked.

2) **Water Use and Management**

- a. **Source of water** Water is purchased from the local water and sewer authority, Washington Suburban Sanitary Commission (WSSC).
- b. **Water consumption patterns (from water bills)**
 - Information currently being analyzed.
- c. **Practices that affect consumption (water saving devices, watering of landscaping, etc.)**
 - **Water saving devices** Low flow toilets have been installed in a number of areas. Faucets are regularly checked for leaks and repaired as are toilets. Hobart dishwasher in kitchen uses very little water and has a 3-minute wash cycle used for cups.
 - **Watering of landscaping** UUCR has a large area of lawn. The lawn is not watered or fertilized. The only watering is of new plantings, such as trees, bushes and shrubs.
- d. **Water quality** Good quality water is readily available. The church is surrounded by suburban neighborhoods. Most houses have lawns rather than xeriscape landscaping. Many in the community continue to use fertilizer, pesticides and water their lawns. While not an immediate threat to the church public water supply, these practices do have an adverse

impact on the local streams and rivers and the Chesapeake Bay which suffers greatly from runoff from suburban neighborhoods.

3) Facilities Management

a. Building cleaning The custodian is a contract employee. The custodian's contract includes the provision that he is to provide all cleaning supplies. Current cleaning products used are not green products. One option would be to renegotiate the contract to indicate the church will provide cleaning supplies.

b. Supplies –

- **Kitchen supplies** - The church switched to using ceramic coffee cups and metal utensils several years ago. Paper plates, napkins and cold cups are still used. Exploration of a dishwasher to clean a high volume of sustainable plates and glasses would be needed as the current dishwasher in the upstairs kitchen functions as a sterilizer after the ceramic cups are washed by hand in the sink.

The senior high youth purchased sustainable products (i.e., dishes, glasses, and utensils) for use in the lower level kitchen that is near their classroom as an intentional act of sustainability. The regular household dishwasher on the lower level is used to clean the kitchenware.

- **Bathroom supplies** – Standard supplies are purchased in bulk from Daycon and delivered to the church.
- **Office supplies** - Paper used for copying is 30% recycled. Paper used to print the Quest newsletter is 50% recycled. Members and friends are encouraged to receive the Quest via email or read it on the church website, so the number of newsletter mailings has declined over the years. Toner cartridges are recycled.
- **Cleaning supplies** – Cleaning supplies are purchased by the custodian. Green purchasing should be explored, using information available from GWIPL.
- **Policies for purchase of recycled, nontoxic, sustainable** There is currently no policy in place. This is an area for further study.

c. Office Equipment

- **Computers** All church computers are Energy Star qualified products and are set to "sleep mode". Most are turned off when

not in use except those that must be accessed remotely. There are a total of 10 computers used by the church, 2 in ECC nursery school in Bldg 2, 1 in RCNS nursery school in Bldg 3.

d. Mailings Members and friends are encouraged to receive the Quest newsletter by email rather than have it mailed. The number of mailed copies has declined over the years thereby saving paper and postage. In addition, the Quest is posted on the church website. 200 copies of the Quest are still mailed. 200 is the minimum number of mailings needed to qualify for a bulk postage rate. The mailing is prepared by volunteers. This is an area for further exploration. There are few all church mailings and most communication has been replaced by email notices.

RE families receive regular mailings of information. With the exception of one hard copy mailing at the beginning of the church year, the vast majority of communication is by email.

e. Awareness and practice re sustainable food All gatherings include vegetarian offerings. Articles about Community Supported Agriculture (CSA) and how to participate have been placed in the church newsletter several times during the past year. Approximately 30 people signed up to participate in UU Ministry for the Earth's 2010 40/40/40 Earth Day challenge regarding Ethical Eating and Food Justice. The church has used fair trade coffee from Equal Exchange for most of the last church year. Healthy snacks and water are used in the RE classes.

f. Recycling procedures Blue recycling bins are available in all buildings for the collection of paper and comingled recyclables. There are additional blue bins that can be placed throughout the buildings. There is a separate dumpster outside for recycling cardboard and larger items that is picked up weekly by Waste Management. Comingled recyclables and paper may be placed in the blue bins. Signs are needed on the bins since most people are familiar with Montgomery County practices requiring separation of paper from other recyclables. The blue bins are emptied into the dumpster by staff. There is currently no established recycling policy. Each RE classroom has a blue recycling bin.

g. Composting Coffee grounds from Sunday morning coffee are saved and applied to the many acid loving azaleas on the property. A compost area for yard trimmings was constructed in 2011 so that weeds and shrubbery pruning are composted rather than transported to the local landfill. Kitchen scraps are not currently composted and would provide challenges for staff if instituted.

- h. **Landscape management** A reforestation plan was required by the City of Rockville as part of the building permit for the new sanctuary. All trees removed as a result of construction had to be replaced. The plan also required the removal of invasive plants from designated areas which was accomplished by volunteers. As a result, 100 trees were planted on the property in 2006 as part of our reforestation commitment to the City of Rockville. More recently, ten trees were planted to replace six large tall pines that were removed to prevent them from falling on power lines and contributing to power outages in the area.

Native species are included in landscaping. The church has contracted with Fine Earth Landscape Company for landscape design and plantings to enhance the new sanctuary and Memorial Garden. Native species are regularly used.

- i. **Community garden** Several attempts have been made from 2008 to the present to establish a community garden at UUCR to grow vegetables to donate to a food pantry and/or provide a gardening experience for children. The Minister and Director of Religious Education initiated the idea. Volunteers have not been found. One couple who live adjacent to the church established a small garden on the property one year and even built a fence to protect it from the deer. In subsequent years, the effort was scaled down to the growing of tomato plants, the care of which fell to an older member of the congregation. Lack of volunteers especially in the summer growing season, difficulty watering, and presence of deer have deterred the effort.

4) **Transportation**

- a. **How do people come to church & events** Most drive in their own vehicle.
- b. **Public transportation** The Q2 Metrobus runs on Manakee Street with a stop within walking distance of the church. Service on evenings and weekends is not as frequent as during the day and the distance between the bus stop and the church is difficult for those with limited mobility. Several Ride On buses also provide service to the area. Many make a stop at the Montgomery College, Rockville campus that is a few blocks up on Manakee Street. There is a sidewalk on Mannakee Street. Information about bus transportation is provided on the church website.

The Washington subway system Metro has a stop in Rockville that is within walking distance of the church although is farther away than the

bus stop. Walking directions from the Rockville Metro stop to the church are not yet posted on the church website.

- c. *Bicycles*** Several people bicycle to church and a bike rack to accommodate 12 bikes was installed a few years ago. A new BikeShare program may be coming to the Rockville/Gaithersburg area, allowing persons to rent and use a bike. Information on bike trails leading to the church could be included on the church website.
- d. *Carpooling*** There is no formalized carpool system. Some people form carpools on their own, especially those living at Asbury Methodist Village, a continuing care community in Gaithersburg.

5) *Financial Management*

- a. *Investment practices and policies - socially and environmentally responsible criteria*** The Board of Trustees voted in 2008 to invest funds for the Endowment Fund, Site Beautification Fund, and Long Range savings in the UUA General Investment Fund that promotes UU values through conscientious investing. A seminar on “Ethical Investing – Environmental, Sustainable, and Governance (ESG)” was presented for interested members of the congregation in February 2011 by a church member who is a financial planner.
- b. *Direct debit of pledge payments*** The Assistant Treasurer established a mechanism in 2008 for members/friends to pay their pledge by direct debit thereby saving paper. More recently, monthly pledge statements are emailed rather than mailed, saving paper and postage.