

## QUUF GREEN AUDIT REPORT

Date 4/3/07

By the Green Sanctuary Committee

**NOTE:** To become certified as a Green Sanctuary, QUUF must complete a Green Audit and then undertake 12 environmentally related projects or activities. The UU Ministry for Earth identifies 4 Program Elements to consider and has activity requirements for each. In addition, we at QUUF created 2 of our own (E and F below):

**A. Worship, spiritual practice and/or community celebration** (at least 2 activities),

**B. Religious education** (at least 1 activity for children and 1 for adults),

**C. Environmental justice** (at least 2 activities, with at least one as a congregation-wide, year-long social justice activity in collaboration with an other congregation or organization), and

**D. Sustainable living** (at least 4 activities, including 1 in the area of energy conservation).

**E. Environmental education and communication**, and

**F. Socially responsible purchasing and investing.**

(Two additional activities may be selected from any of the areas listed).

The QUUF Green Sanctuary Committee created the comprehensive list of questions below, using ideas from several other UU congregations, and then researched the answers (shown in **bold italics**) during the first quarter of 2007. This report is meant to show how we are doing environmentally, help us identify our 12 activities for next year, and serve as a baseline to measure our improvements in caring for the earth.

### QUUF GREEN AUDIT QUESTIONS & ANSWERS (*in italics*)

#### **A. WORSHIP, SPIRITUAL PRACTICE, AND COMMUNITY CELEBRATION.**

How well does your worship integrate the wisdom of the Earth, environmental consciousness, appreciation of nature, and awareness of the 7<sup>th</sup> principle?

***Quite well. Environmental/7th Principle topics were included in QUUF worship at least 5 times last year:***

***4/23/06 Earth Day Service: Blessing of the Animals, by Bruce Bode & Nancy Graham***

***6/18/06 "For the Love of Nature", by Karen Frank & Dana Fickeisen***

***6/25/06 "How Much is Enough?" by Helen & Kees Kolff***

***7/9/06 "What Buddha Said: The Spirit of Nature and Nature of Spirit", by Val Hampson***

***8/13/06 "Four Faiths in a Modern World: Naturalism", by Bruce Bode***

***Winter Solstice was celebrated and references to other seasonal changes and to the Earth and Nature were made in sermons throughout the year.***

#### **B. RELIGIOUS EDUCATION FOR CHILDREN AND YOUTH**

What RE programs for children and youth relate to the environment?

(Note: see section E below for adult education programs)

***In Our Hands curriculum –***

***4<sup>th</sup> -6<sup>th</sup> grades: Earth Awareness, Earth Interdependence, Earth Stewardship***

***1-3<sup>rd</sup> grades: Appreciation of Nature, Feelings About Nature, The Web of Interdependence, Partners with Nature.***

***Preschool lessons from UUA curriculum: Chalice Children: We Wonder about... pussywillows, stars, moon, snow, rainbows. We Are Many, We Are One: Unit Title is Nature gives us gifts, Nature Needs our Care (7 Lessons).***

***Celebrating Me and My World: sessions on animals, fish, birds, water, air, sand and soil, trees, flowers.***

***Stories About God as: Web of Life, compassionate deer, earth and sky, light, darkness.***

***UU Super Heroes: Henry David Thoreau, Ralph Waldo Emerson, Melvina Reynolds, Pete Seeger.***

***Treasure Hunting Titles: Earth, a Home We Share, Trees, the Givers of Life, Thanks to the Animals.***

***When we study the UU 7 Principles there are specific lessons on the 7th Principle.***

***On Earth Day there was litter pick up and a walk to Kah Tai Lagoon where we blessed the earth, and Coming of Age projects included scotch broom clearing and beach litter pickup.***

***Chalice Lighting words often spoken: "We light this chalice, to celebrate Unitarian Universalism. This is the church of the open mind, helping hands, loving hearts. Together we care for the earth, And work for peace and friendship in the world."***

#### **C. ENVIRONMENTAL JUSTICE**

How is earth caring a part of your overall social action program?

***The Social Justice and Education Committee has been involved in numerous activities with only an indirect impact on environmental issues or environmental justice. Programs supported include thing like: Habitat for Humanity (contributions and work), the Haines Street Cottages for temporary emergency housing, the HOPE collections for the food bank, the Heifer Project and providing evening monitors and food for the temporary***

homeless shelter. We are active with COAST (Community Outreach And Shelter Team), providing some winter time shelter for the homeless.

The congregation was active in helping the Hurricane devastated area of Mississippi in the Bay St Louis Sister City Katrina Project. QUUF provides space for meetings and serves as financial fiduciary for their special funds. Many members of QUUF, including over a dozen youth, have gone to do work parties rebuilding homes in Bay Saint Louis.

An Alternative Christmas Fair promotes the use of a less consumptive and commercialized holiday season. Post card/letter writing campaigns are occasionally scheduled after the service to support positive legislative initiatives, but none specifically on the environment.

What environmental issues are important in the local community?

Some of the local environmental issues include habitat conservation, salmon stream restoration, use of pesticides/herbicides, decreasing open space, genetically modified foods, the Mill and its effects on air and water quality, wood smoke pollution, and more recently, global warming.

#### D. SUSTAINABLE LIVING

##### 1. ENERGY CONSERVATION

Have we done an energy efficiency audit? *Yes.*

When? *2/28/07 by Mike Kennedy Inc, Building Energy Use Consultant*

What were the results?

*“Most aspects of the church are very energy efficient. The windows are excellent and the building shell is good. Overall energy use is 6.7 kWh/yr per square foot. This is roughly inline with consumption with other churches in the region. Based upon the data provided I think the space heat estimate (66% of total) is probably close to correct. The remaining consumption is largely for lighting with a very small amount for water heat.”*  
*At the time of the audit, the setpoints for the Sanctuary thermostat were higher than posted on the instructions:*

Hours	Week days	Saturday	Sunday
8am-12pm	65	62	67
12pm-5pm	65	63	63
5pm-10pm	63	63	60
10pm-8am	58	58	58

What is our average monthly electricity usage (kWhs in past 12 mos.)? *We used 24,936kWhs in all of 2006, or about 2000kWhs/month: with a low of 518 kWhs in August, and a high of 4020 kWhs in March. We estimate that 66% was for heating.*

Do we use natural gas for anything in the building? *We use propane for the cooking stove in the kitchen.*

What is the source of building heating? *Electric baseboard.*

Does the building get good passive solar heating? *Little.*

Do trees block passive solar access? *Minimally.*

Does the church have thermo pane windows? *Yes.*

Are the seals all functional? *All but one.*

What is the R factor of building walls? *Rastra block, 10” walls with R 12-21, and not as good as originally advertised.*

How do people get to church?

*Cars? In a survey of 173 members on 2/25/07, 83% come by gas or diesel car, 6% by hybrid, and 2% by electric vehicle. Only 17 had a “disability requiring them to drive or ride”. Of the 149 who specified distance to home, 68, or 46%, came two miles or less to come to church, 27 came between 2-5 miles, and 54 came more than 5 miles.*

Average # of riders? *There were an average of 1.87 people in a vehicle. Most of them (83 in number or 53%) came in a car with one other person. Almost half (71 or 45%) were “interested in carpooling”, and another 15 might be interested.*

Walkers? *There were 13, or 8% who came on foot, and an additional 13 who said they often did.*

Bikers? *There were 3, or 2% who biked, and an additional 7 who said they often did.*

Bus? *None came by bus.*

Is there a carpooling program? *No. There was a brief attempt in about 2000.*

Are procedures in place for turning off electricity? *No written policies, but some posted procedures. In RE there are posted light and heat “close down” instructions, and these appear to be followed.*

Lights in an empty room? *Usually turned off.*

Computers? *Left on sleep mode or turned off.*

Fax machine? *Works only on demand.*

Copier? *Turned off.*

Printer? ***In RE office, left on.***  
Coffee machines? ***Turned off.***  
Other?

Do thermostats have timers? ***Only in the Sanctuary.***

What is the water heater temperature setting? ***Turned down to 115 F during audit.***

What kind of water heater is it? ***Electric.***

Is it an "on demand" unit? ***No.***

Do we have a passive solar system for preheating water? ***No.***

Do we use compact florescent light bulbs? ***Yes, some, and many regular fluorescent ones, especially in the RE wing. They are not the newest, most efficient models.***

How many?

How many incandescent bulbs do we use? ***Three in the office and 12 spot lights in the Sanctuary.***

Do we pay for Green Energy with our electric bill? ***No.***

Is any electricity generated on-site? ***No.***

Do we pay for "carbon offsets" to mitigate our impact on global warming? ***No.***

## **2. WASTE REDUCTION**

What is our average number of gallons of trash per week (past 12 months)? ***About 1.5 trash cans of 30 gallons each per week.***

What is our average weight of recycled materials in a month for: ***NO DATA.***

Glass? Aluminum? Paper? Plastic? Newspapers? Cardboard?

Do we have a recycling policy in place? ***No written policy.***

How well do we comply with community recycling policies? ***Fairly well. Recyclable items often get mixed with trash and vise versa in the kitchen, where there is less control over use. The office and RE areas comply very well.***

Do we recycle printer cartridges? ***Yes.***

Do we compost biodegradables? ***Very little. No written policy.***

On site? ***No.***

Off site? ***Only sometimes, when people offer.***

Average weight of compostable organics per week: ***NO DATA.***

Average amount of paper purchased per month: ***NO DATA.***

Do we have a policy on use of aluminum cans for drinks? ***No.***

Use of plastic water bottles? ***No.***

Do we use both sides of a piece of paper for Copying? ***Sometimes.***

Printing? ***No.***

Fax machine? ***No, it doesn't work then..***

Do we use refillable pens vs. disposable pens? ***No.***

Do we use rechargeable batteries? ***No. We use an average of three 9 volt batteries every 3 weeks, which is 52 a year. Not only is the disposal of these a problem, they cost about \$2.50 each, amounting to \$130 a year. We also use AA batteries to power the hearing aids, although we don't have to replace them as often.***

Is office paper recycled? ***Variable.***

% recycled? ***Variable.***

% pre/post consumer? ***Variable.***

Chlorine-free? ***No.***

FSC (Forest Stewardship Certified) certified? ***No.***

What type of paper is used for the Order of Service? ***Heavy stock cover is reused, and insides are usually 24# stock for better legibility if printed on both sides.***

***We use self-adhesive, non-recyclable paper name tags for guests on Sundays.***

Do we use toilet tissue with 100% recycled content? ***Yes, it is "7<sup>TH</sup> GENERATION".***

***The paper towels we use are partially recycled paper.***

Is there a policy on use of washable dishes rather than disposable products? ***No written policy but we usually use washables.***

Do we use cloth instead of paper napkins? ***Usually, but there is no written policy.***

***In the kitchen our green goals include waste reduction, hygienic measures affecting health, and communication to the fellowship. Since our April 2006 Earth Day kick with a North West Earth Institute Eco Party, we no longer purchase paper or plastic dining products and have moved***

- from paper towels to rags***
- from paper & plastic plates, platters, and cups to china***

- *from plastic table cloths to fabric*
- *from plastic aprons to cloth*
- *from plastic utensils to washables*
- *from paper napkins to 282 cloth napkins ( 100 more needed )*
- *from sponges to wash cloths*

Do we reuse Folders? *Yes.*

Order of service covers? *Yes.*

Computer disks? *N/A.*

Envelopes? *Yes.*

Do we use envelopes without plastic windows? *Yes, except for some billing envelopes.*

Are products purchased in bulk? (List products) *NO DATA.*

Do we buy tea in bulk rather than little bags? *No.*

Do we use paper rather than plastic bags whenever possible? *Not necessarily.*

### 3. WATER CONSERVATION

Average monthly water usage (past 12 mos.) (gallons): *53,000 GALLONS IN 2006.*

*Jan 1,000 Feb 2,000 Mar 3,000 April 2,000*

*May 2,000 June 5,000 July 1,000 Aug 6,000*

*Sept 18,000 Oct 7,000 Nov 3,000 Dec 3,000*

*Total cost \$1,247.27*

Do we have water-saver toilets? *YES.*

Average gallons per toilet flush? *About 1.6 gallons/flush.*

# of dual-flush toilets? *None.*

Are there water-saver faucets? *No.*

With aerators? *Yes.*

With motion sensors? *No.*

Do we have urinals? *One.*

Are any waterless? *No.*

Is there a rain catchment, storage and irrigation system? *No.*

### 4. REDUCTION OF TOXIC SUBSTANCES

Are there Policies in place for avoidance of toxins? *No.*

Do some of our rituals produce toxins? *Yes. The Chalice burns with oil. There are often 10 or more candles lit as part of the expression of joys and concerns during each service. An increasing number of people are concerned about the health effects of smoke, especially for those with chemical sensitivities.*

Do we use environmentally friendly or eco-safe products?

For the kitchen? *Yes, except for use of Shout Spray, which was discontinued during the audit.*

In the bathrooms? *Yes.*

For general cleaning? *Yes.*

For landscaping? *Yes.*

Do we use phosphate-free, biodegradable:

Dishwashing detergent? *Yes.*

Hand washing soaps? *Dial liquid, and NOT earth friendly!*

Are soaps also free of antibiotics? *Not always.*

Cleaning agents? *Vinegar is used occasionally.*

Do we use colored paper? *Yes.*

Do we use unbleached (chlorine-free) white paper? *Not necessarily.*

Do we use toxic fertilizers/pesticides/herbicides inside or outside? *No.*

Do we use gas-powered equipment for grounds maintenance? *Yes.*

Do any have 2-cycle engines? *Yes.*

Do we use organic compost? *None used to our knowledge.*

What is its source and type? *N/A*

Do landscaping policies include: *No written policies.*

Preservation of existing, beneficial native plants? *Yes.*

Elimination of dangerous exotics? *We are working slowly on the eradication of Scotch Broom.*

Do we use unbleached coffee filters? *Yes.*

Do we have a gas range? *Yes.*

Do we prioritize consumption of organic foods? *No.*

Does the current building have materials or furnishings that may expose occupants to toxins? *None identified. The current building is 10 years old. . It has Rastra Block walls, stained concrete floors, stucco and plaster no-paint finish, low VOC water-based finishes on wood trim, and latex paints. For a more complete listing of construction practices to reduce waste and build efficiently, see the appendix. We don't know the type of wax covering on the concrete floor. There are some vinyl coverings in the kitchen and RE bathrooms. Tables are of particleboard with wood finish.*

#### **E. ENVIRONMENTAL EDUCATION and COMMUNICATION**

Are there policies and procedures for informing congregation about:

Aspects of our "greening" efforts and progress? *No.*

Personal eco-lifestyle tips for members of the congregation? *No.*

Pending environmental legislation? *No.*

Is there an environmental lecture series? *No, but some relevant programs:*

*Slide Presentation – Sense of Place by Weinmann 2006*

*Movie showing – "An Inconvenient Truth" by Al Gore 2006*

Does it focus on advocacy? *No.*

Are there adult classes? *Yes, some ALPS classes and book discussions have addressed environmental issues:*

*Book Discussions – The Great Turning, by Korten and Collapse, by Diamond, 2006*

*Healthy Children-Healthy Planet course, with Helen Kolff, 2007*

*Intentional Communities and Ecological Footprints, with Kees Kolff, 2007*

*EcoParty with 15 members looking at household toxics, 2006*

Is there an Environmental bulletin board? *No.*

Are there policies for renters, concerning the need to be "green"? *No, but a list of non-disposable preferences has been posted in the kitchen and included in the renter folders.*

Is there an outdoor garden with interpretive information? *No.*

Does it have native plants? *Some.*

Is it educational? *Not specifically.*

Is there a garden for growing organic produce on church grounds? *No.*

Are there field trips to natural areas or environmental education sites? *No.*

#### **F. SOCIALLY-RESPONSIBLE PURCHASING AND INVESTING**

Do we have policies on purchasing? *No.*

Do we purchase locally to reduce shipping? *Not necessarily.*

Do we purchase locally to keep profits local? *Not necessarily.*

Do we support small, locally owned businesses? *Sometimes.*

Do we purchase fair trade products?

Coffee? *Yes.*

Is it also shade grown? *No.*

Chocolate? *No.*

Do policies govern investing? *No.*

Do we invest in socially responsible financial venues? *No.*

#### **APPENDIX**

##### **Current Building Construction and Furnishings**

*The first QUUF building (completed in 1997) has significant green elements – it was built for durability, low maintenance, energy efficiency and beauty. Stained concrete floors, stucco and plaster no-paint finish, low voc water based finishes on wood trim, latex paints where necessary, recycled materials for some doors, cabinets and furnishings, minimizing waste through recycling of excess and temporary construction materials, zone heating systems, long life cycle consideration in choice of structure and finish – proven low operating and maintenance costs over almost 10 years of operation.*

*Building materials: Exterior walls of Rastra Block, concrete and recycled polystyrene.*

*Interior walls, 2x4 framing.*

*Roof – Scissors Trusses (2x6 framed) with ?R-value insulation in ceiling.*

*Concrete floors throughout Sanctuary building*

*Wood sub-floor under all of youth building with ?R-value insulation in floor.*

*Trim - Construction grade 1x4 and 1x6 kiln dried on site.*

*Interior window Trim - hand picked framing lumber.*

*Exterior window and doorsills - recycled slate.  
Sanctuary ceiling - 1x4 tongue and groove hemlock applied to bottom of trusses  
Exterior barge rafters, rafter tails – construction grade lumber, oil-based Cabot's stain finish.*

*Finishes: Outside walls – Stucco with color added in mix – no painting required.  
Inside of exterior walls – Structolite plaster with color added in mix – no painting required.  
Concrete floor – acid etched and finished with Brand?  
Wood trim, doors, ceiling – water-based finish by Benjamin Moore.  
Carpet, no pad – commercial, nylon purchased locally.  
Latex paint used on any interior sheetrock walls – back of Sanctuary, office spaces, RE  
Vinyl floor covering in kitchen and RE Baths.  
Countertops – Formica type – also fronts of Cabinet drawers and doors.  
Kitchen Cabinets recycled from solid plywood cabinets from local residence.  
Kitchen shelving is plywood, edge painted, and some particleboard.  
Windows – vinyl, double paned in RE and Kitchen.  
Sanctuary windows aluminum clad exterior – wood interior. Low E per 1996 code. Requirements. Brand?  
Bathroom wainscoting – vinyl-coated hardboard, vinyl toe-kick.  
Doors – entry door hand crafted by member David Gurnee.  
Tall Sanctuary doors - recycled or seconds from various sources.  
Sinks – porcelain on metal, except for kitchen, which is stainless steel.  
Railings – wood to upstairs, bathrooms have steel grab bars.  
Partitions in youth building – plastic/ vinyl?  
Sound insulation panels – porous white material – fiberglass base with yellow ? underneath used as  
bulletin boards in youth building.*

*Furnishings: Sanctuary chairs (bought used, from Microsoft) recovered with green nylon fabric by Pacific Office.  
Ten gray cloth-covered swivel chairs bought used from a bank  
Bookcases -- steel, wood, plywood, particle-board covered with wood veneer  
Tables – plastic folding tables 8', particle-board with wood finish, wood  
Chairs – child-sized plastic w/metal legs, metal folding with vinyl seats, cloth-covered w/ metal legs.  
Toys – plastic kitchen and Fisher Price (some used)  
Storage containers -- plastic  
Mats / Rugs – plastic/vinyl by doors*