

Second Presbyterian Church

Sustainability Plan

May 2021

- ❖ This document consists of a **Statement of Purpose** and a **Checklist** recommending sustainable practices for greening the church's facilities, grounds, operations, and maintenance. It serves as a planning guide for clergy, staff, and laypersons in efforts to increase the sustainability and energy efficiency of church facilities through implementation of realistic and cost-effective improvements. It complements the church's existing facilities operations and maintenance program.
- ❖ It is meant to be a "living document" and is based on the General Assembly of the Presbyterian Church (U.S.A.)'s 1990 adoption of *Restoring Creation for Ecology and Justice*, as well as the General Assembly's 2006 resolution calling on all Presbyterians to strive for carbon neutrality through reduction of carbon emissions.
- ❖ These voluntary measures call on our denomination to engage in the tasks of environmental stewardship as a bold Christian witness. The Second Presbyterian Church Sustainability Plan offers guidance in making such a witness that is consistent with the church's Reformed tradition.

STATEMENT OF PURPOSE

Developing a Sustainability Plan for Second Presbyterian Church - Roanoke, Virginia

BACKGROUND ¹

In 1990 the 202nd General Assembly of the Presbyterian Church (U.S.A.) adopted Restoring Creation for Ecology and Justice, which calls our denomination to engage in the tasks of restoring creation. The “Call to Restore the Creation” is part of the resolution and stated that the General Assembly:

- Recognizes and accepts restoring creation as a central concern of the church, to be incorporated into its life and mission at every level;
- Recognizes that restoring creation is not a short-term concern to be handled in a few years, but a continuing task to which the nation and the world must give attention and commitment, and which has profound implications for the life, work, and witness of Christian people and church agencies;
- Approaches the task with covenant seriousness and with practical awareness that cherishing God’s creation enhances the ability of the church to achieve its other goals.

WHY WE SHOULD CARE FOR THE EARTH ¹

Our faith urges us to strive for eco-justice: defending and healing creation while working to assure justice for all of creation and the human beings who live in it. This call is rooted in the human vocation of “tilling and keeping” the garden from Genesis 2:15, as well as Christ’s charge to work with and for the most vulnerable. Because of their love for Christ, churches are challenged to live in a manner consistent with God’s call to care for and connect with the Earth. Becoming involved in sustainability makes church buildings, grounds, operations and maintenance along with worship services, education, and outreach respectful of the glory of God’s creation.

WHY SUSTAINABILITY IS KEY TO STEWARDSHIP ²

Faith traditions teach the importance of stewardship of natural and financial resources. Below are just a few of the important potential benefits of strategic and cost-effective sustainability through stewardship:

- Inform the church’s facility management through maintenance planning and budgeting
- Save money that can be redirected to the basic faith-inspired mission of the congregation
- Support capital campaigns by demonstrating that stewardship is “practiced as well as preached”
- Extend the useful lifespan of church buildings and equipment
- Increase the asset value and improve the overall comfort and appearance of church facilities
- Conserve natural resources for future generations
- Reduce carbon emissions and greenhouse gases that threaten life-supporting ecosystems
- Engage the time and talents of congregation members, especially youth groups

¹ Adapted from *Earth Care Congregations: A Guide to Greening Presbyterian Churches*, Version 4, Updated 2018. www.pcusa.org/earthcarecongregations

² Adapted from *ENERGY STAR® Action Workbook for Congregations*, Updated May 2019. https://www.energystar.gov/buildings/tools-and-resources/energy_star_action_workbook_congregations

2PC Recommended Sustainability Practices Checklist¹

Buildings, Grounds, Operations and Maintenance (O+M)

5/13/2021

Properties

- Main Church Building 214 Mountain Ave, SW
- Intersection House 305 Highland Ave, SW (includes paved parking area to the east)
- Alpha and Omega House 917 3rd Street SW
- Paved Parking Lot 215 Mountain Ave, SW (north across the street from main parking lot)
- Gravel Parking Lot 1004 Third Street SW (south across the street from the sanctuary)

Building Energy Audit

- Have Appalachian Power conduct an initial energy audit available thru <https://takechargeva.com/business/small-business-direct.aspx>
- Consider a more detailed energy audit available locally from Better Building Works <https://betterbuildingworks.com>
- See link to Return on Investment (ROI) data on implementing energy saving measures <https://www.greenandsave.com/master-roi-table>
- Monitor all utility bills (monthly usage and cost) and review annually <https://www.energystar.gov/buildings/benchmark>
- Calculate the church's carbon footprint www.coolcongregations.com/calculator

Building Envelope - Roofs, Walls, Windows, Doors, Louvers, Vents, and Insulation

- Collect architectural/engineering drawings and convert to electronic format
- Check for air leaks (infiltration/exfiltration)
 - Smoke test windows, doors, outlets in exterior walls and inspect exterior joint sealants, weatherstripping, interior caulking, door closers
- Check for rainwater leaks
 - Copings, flashings, joints at roof, parapets, attics, penthouses, doors, windows)
- Verify/check existing insulation (type and R-value) to extent possible – see link for insulation basics at <https://www.energy.gov/energysaver/weatherize/insulation>
- Verify status of interior window shading devices (blinds, curtains, etc.)

Heating, Ventilation, and Air Conditioning (HVAC)

- Verify status of existing annual service/maintenance/replacement contract
- Replace equipment filters as recommended by equipment manufacturer
- Refer to HVAC recommended maintenance checklist https://www.energystar.gov/campaign/heating_cooling/maintenance_checklist
- Verify accuracy and status of programmable thermostats; verify temperature set points
- Check forced air duct work for leakage and insulation
- Pipe organ considerations

Lighting

- Replace incandescent bulbs with ENERGY STAR® certified LED's
https://www.energystar.gov/products/lighting_fans
- Retrofit or replace existing light fixtures with LED fixtures (check existing exit signs)
- Ensure appropriate lighting levels and set points
- Upgrade T12 fluorescent bulbs with more efficient T8 or T5 bulbs
- Install occupancy/vacancy sensors to turn lights on and off
- Install daylight-responsive light controls

Office Equipment (Computers, Monitors, Copiers, Printers, A/V, etc.)

- Buy ENERGY STAR® Products https://www.energystar.gov/products/office_equipment
- Set devices to go into low power “sleep mode” or turn off when not in use
- Use smart power strips that monitor and control power to each outlet in the strip
- Eliminate unnecessary printing and print double sided whenever practical

Kitchen/Food Service Equipment

- Determine the church's kitchen and food service equipment needs. Is all existing equipment necessary for how the church operates today and in the future?
- Buy ENERGY STAR® certified commercial food service equipment
https://www.energystar.gov/products/commercial_food_service_equipment
- Buy ENERGY STAR® certified kitchen appliances such as
 - Refrigerators <https://www.energystar.gov/products/appliances/refrigerators>
 - Dishwashers <https://www.energystar.gov/products/appliances/dishwashers>
 - Vending machines https://www.energystar.gov/products/other/vending_machines
 - Water coolers https://www.energystar.gov/products/other/water_coolers


Water - Hot and Cold

- Conduct a water assessment identifying major water uses within the property and grounds
- Document existing water heaters and verify if insulated – set temperatures as appropriate
- Find and fix all water leaks
- Purchase WaterSense certified products when replacing fixtures
<https://www.epa.gov/watersense/watersense-products>
 - Faucets: <https://www.epa.gov/watersense/bathroom-faucets>
 - Toilets: <https://www.epa.gov/watersense/commercial-toilets>
 - Urinals: <https://www.epa.gov/watersense/urinals>
- See EPA WaterSense at Work: Best Management Practices
<https://www.epa.gov/watersense/best-management-practices>
- Purchase an ENERGY STAR® certified water heater when buying new water heaters
https://www.energystar.gov/products/water_heaters
- Practice water efficient landscaping
<https://www.epa.gov/watersense/outdoors>
- Check exterior roof downspouts for how stormwater is discharged at grade (prefer to discharge onto landscaped areas if possible vs. hardscaped areas)

Site Management

- Use native plants to foster pollinators and habitat; see Sustainable Landscaping Guide at <https://www.buildium.com/resource/sustainable-landscaping-guide/>
- Plant trees (contact Trees Roanoke at <https://www.treesroanoke.org>)
- Use environmentally friendly snow and ice removal products
- Reduce fertilizer/insecticides; use pest management practices <https://ecosmart.com/>
- Consider planting a community garden <https://roanokecommunitygarden.org/>

Waste Performance

- Recycle daily supplies of paper, plastics  only, metal, glass, ink cartridges, etc.
- Recycle equipment, batteries, and lamps
- Avoid disposable water bottles whenever possible and encourage staff and congregation to bring their own reusable water bottles - bottled water is environmentally problematic https://thewaterproject.org/bottled-water/bottled_water_wasteful
- Use real plates, glasses, cups, and cutlery rather than disposable ones

Purchasing

- Buy ENERGY STAR® Products <https://www.energystar.gov/>
- Paper products like toilet paper, paper towels, or copy paper, here's what you want:
 - Post-consumer recycled content (highest possible content)
 - Unbleached and/or chlorine-free
- Building Materials
 - Flooring: <https://www.greenamerica.org/green-living/eco-friendly-flooring> and <https://www.otitech.com/blog/the-best-green-flooring-options-for-lead-certified-building>
- Consider a policy that prioritizes local businesses; food purchases and food catering that promote sustainable agricultural practices, paper products, furniture; buying locally helps support small businesses and minimizes environmental impacts of shipping

Tobacco Smoke Control

- Prohibit smoking in all indoor areas and all outdoor work areas
- Outdoor smoking areas should be clearly marked and located at least 25 feet from building entrances, air intakes, and entry routes
- Make sure there is a place for smokers to put their cigarette butts

Green Housekeeping

- Avoid cleaning/maintenance products containing volatile organic compounds (VOCs), formaldehyde, and other chemical hazards. More information about green cleaning products at <https://www.epa.gov/greenerproducts/identifying-greener-cleaning-products>

¹ Adapted from *ENERGY STAR® Action Workbook for Congregations*, Updated May 2019. https://www.energystar.gov/buildings/tools-and-resources/energy_star_action_workbook_congregations