

# **BUILDING CLIMATE RESILIENCE**

Best Practices for Life Plan Communities



*“We can create new communities, ones that are resilient, supportive, and proactive. As elders we have experience, and we have wisdom. Let us put them to work.”*

Prepared by Resident “Green Teams” from Six Portland area Retirement Communities  
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## **Life Plan Communities Building Climate Resilience**

### Preface

Since early 2019 members of six Green Teams in some of the premier retirement communities in the greater Portland area (Holladay Park Plaza, Mary's Woods, Mirabella, Rose Villa, Terwilliger Plaza, and Willamette View) have been meeting to share information about our resident and institutional environmental practices. We focused initially on sustainability because that was the language of the industry.

We began our sharing in the hopes that our institutions could model responsible elder action in the face of climate change. We hoped too that we could provide blueprints for other retirement communities and perhaps even illustrate best practices to the larger retirement industry.

Over time, however, we have become increasingly sobered by the dire warnings from international climate institutions concerning the impacts of unmitigated climate disruption. Greenhouse gas emissions are causing climate disruptions today and must be stopped if the planet has a chance to survive. We think that to be responsible, elder institutions should be forward thinking in light of unknowable but unavoidable climate disruption consequences. Let us cease talking about sustainability and instead develop resilience. At its most basic, to live sustainably means that future generations will have the same ability to meet their needs as we do today. This is becoming less likely. As a civilization we have overshot our resources and future generations may have to do with much less.

In the face of this awareness how then do our elder institutions move forward? What decisions, values and conversations need to occur to make us more resilient? How should we balance diminishing resources and the increasing need for elder care? What can our institutions look like? What is possible? Can we become resilient?

None of us has answers to our existential dilemma; we can only be as responsible as is possible in this moment. Therefore, we residents share with you the results of our thinking, the modest yet responsible practices that our institutions can and must adopt. That will be a beginning.

The first step is that our governing boards and administrators must lead, in partnership with committed residents. We must take responsibility for knowing that our institutions cannot continue with the outdated models upon which they were built, that new challenges require new business, operating, and marketing models. Our institutions must become resilient and flexible in the face of unknowable economic, meteorological, and social upheaval. Boards, administrators, and residents will need to make changes in our unsustainable practices.

We are heartened by the sustainable activities our institutions do exhibit. This document shares many actions being taken by residents and management now. LEED certified new construction, natural landscaping, recycling, EV accommodation are all steps in the right direction. And we are fortunate to live in Oregon, which adopted the most aggressive-clean energy plan in the nation in 2021, calling for 100 percent renewable energy by 2040.

We hope that this document is helpful as we move forward. We can create new communities, ones that are resilient, supportive, and proactive. As elders we have experience, and we have wisdom. Let us put them to work.

## **Building Climate Resilience: Best Practices for Life Plan Communities**

This document describes actions management and residents can take to fight the climate crisis. They were developed with Life Plan/Continuing Care Retirement Communities in mind but are applicable to institutions and individuals everywhere. The practices are organized into five solution areas identified in Project Drawdown and described on its website [Drawdown](#). The five solution areas include Energy, Transportation, Food, Biodiversity, and Waste Reduction & Recycling.

### **Energy Source and Use**

Thirty-one percent of greenhouse gas emissions come from the production of electricity and heat.<sup>1</sup> We need to envision and implement big steps to de-carbonize our power sources. Hands down, clean energy is the most effective way to reduce the carbon footprint across facilities. For the power we do need, we can find ways to conserve energy and save money too.

#### **Energy Source**

- Divest assets from fossil fuel, appeal to boards' fiduciary responsibility
- Offer co-generation features on site such as heat pumps, micro wind, methane digesters
- Install solar panels on main facilities and nearby grounds
- Secure waste management contracts with companies that convert compost waste to energy.
- Reuse heat from clothes dryers for facility and water heating
- Choose energy suppliers that provide renewable power like wind and solar, and offer residents the opportunity to enroll in the utility's renewable energy option

#### **Rose Villa Residents Support Renewable Energy**

At Rose Villa, many residents upgrade their PGE utility bill by paying a little extra to prioritize clean energy. Once everyone opts in, this will result in preventing over 2,700 tons of carbon dioxide from entering the atmosphere, the equivalent of six million miles not driven, 514 cars off the road, and 643 trees planted. This is a great tool to reduce emissions!

#### **Energy Use**

- Install energy efficient LED lights throughout the entire facility
- Equip motion detectors to turn off lighting in storage rooms, offices, restrooms, garages, and other common areas when not in use
- Set outdoor lights to go on and off with daylight sensors and assure that lighting protects the safety of everyone while minimizing impacts on wildlife such as moths and birds
- Dispense with unnecessary carbon amenities such as gas fireplaces

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<sup>1</sup> Center for Climate and Energy Solutions, 2018

- Educate residents about the high energy use of electronic devices like computers, as well as the practice of cryptocurrency trading
- Purchase new appliances that are ENERGY STAR-certified, and make sustainable features like low water toilets and Energy Star appliances standard
- Set water heaters to 120 degrees or less
- Wear sweaters instead of turning thermostats higher and use fans instead of AC for cooling, whenever possible
- Install and maintain energy efficient windows in all buildings
- Weather strip windows and doors and inspect gaskets on refrigerators and freezers to assure they remain in good working order
- Install automatic door closers and /or strip curtains on walk-in cooler doors and keep seals on coolers in good order
- Establish a facility-wide baseline energy audit through the Energy Trust of Oregon SEM (Strategic Energy Management) program. Set a goal for a percentage reduction in electricity and gas usage by a date certain and monitor annually and evaluate conservation opportunities
- Educate residents on ‘ghost power’, especially with electronic devices, and act to mitigate

## **Food**

Globally, agriculture and forestry activities contribute 24 percent of greenhouse gas emissions.<sup>2</sup> We can significantly reduce emissions through our food choices by consuming less meat and more fruits, veggies, and other plant-based options. Residential facilities can lead the way by offering vegan and vegetarian foods and by minimizing food waste.

### **Plant-rich foods**

- Offer education programs on the impact of food choices on the climate crisis
- Offer plant-rich, vegetarian, and vegan choices at dining facilities
- Increase demand for these options by offering tasting tables, chef forums, and featuring specials such as meatless dishes from other cultures, sponsoring meatless Mondays (and months), hosting potlucks
- Offer plant-rich, vegetarian, and vegan cooking classes and create cookbooks too

### **Serving up a Commitment to Health and the Planet**

Dining venues at Willamette View offer a different vegetarian protein entrée for dinner every day, along with several fresh vegetable choices. A resident group sponsors monthly plant-based education programs and sends a rep to the committee that meets regularly with the dining director and executive chef to collaborate on nutritious menu planning. In summer a kitchen garden provides fresh herbs and vegetables for resident meals.

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<sup>2</sup> *Project Drawdown, 2017*

### Reduce food waste

- Minimize food waste
- Streamline menus among multiple kitchens to reduce food waste
- Adopt composting programs for food scraps
- Distribute leftover food to staff and food kitchens

### Source foods in new ways

- Prioritize healthy, environmentally friendly purchasing options
- Support local farmers' markets
- Source organic foods from local vendors
- Provide sustainably harvested meats, fish, poultry
- Offer reusable containers for take-out
- Eliminate single-use plastics such as cups, bags, and straws
- Encourage residents to use reusable bags, baskets, or other containers for take-out items from bistros, on-site delis, and as alternatives to plastic wrap
- Do not put fats, oils, greases (FOG) down any drains

## **Transportation**

Worldwide, over 14 percent of greenhouse gas emissions are due to transportation.<sup>3</sup> Facility managers and residents make transportation decisions daily when sending goods, shopping on-line, traveling or selecting vendors

### Motor vehicle transit

- Purchase only electric vehicles
- Choose vendors that use electric vehicles
- Provide incentives for staff and residents to choose non-fossil fuel modes of travel
- Support programs that help staff and residents go without cars (e.g., Shuttle Buses, Lyft, Uber, GoGo-Grandparents), and to use public transit (e.g., transit cards, encouraging stops near facilities)
- Support car-share programs (e.g., Turo, Zipcar, Envoy)

### Parking

- Limit parking to one car per unit
- For new construction minimize square footage used for parking by stacking cars

### **Parking, EVs in Portland**

Mirabella Portland offers valet stacked vehicle parking and seven electric vehicle (EV) charging stations. There is parking for nearly 300 vehicles in a 38,000 square foot underground garage. Stacked parking saves nearly a third of the space that would otherwise be required.

Mirabella also hosts an EV car share program for residents to drive an EV anytime to travel to appointments, shops, visits, and more.

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<sup>3</sup> *Project Drawdown, 2017.*

### Other transportation

- Use carbon neutral vendors
- Use carbon-offset/carbon neutral shipping for online shopping and shipping
- Help staff and residents learn public transit routes and user requirements and to secure benefits such as Senior Citizen discounts
- When flying, opt for carbon offset programs

## **Land and Water Use & Biodiversity**

Climate disruption accelerates fires, droughts, and floods. Many facilities were designed years ago with landscaping for a different era. Facilities and residents should assess how their grounds can be upgraded or redesigned to adapt to climate change and establish more resilient plants, trees, water systems, and soil. These changes are important for plants and animals too. The “look” of properties may change, and changes will demonstrate environmental leadership.

### Land use

- Reduce lawn acreage and replace with native and drought resistant plants
- Encourage memorial tree plantings and green roofs, maximize tree canopies
- Develop pollinator gardens
- Reduce or eliminate chemical fertilizers and pesticides
- Provide facilities for composting
- Provide space for gardens on rooftops, grounds, and balconies
- Replace gasoline powered equipment such as mowers, blowers, and trimmers with clean energy equipment (electric or battery operated)

### Water use:

- Install low flow shower heads and faucets, and low water washing machines, dishwashers, toilets, and urinals
- Collect and reuse rainwater for irrigation, including bioswales, and reuse gray water
- Install irrigation timers that can be switched off in wet weather; install drip irrigation on planted areas
- Create semi-permeable surfaces wherever possible
- Use no/low phosphorus and BPA-free cleaning supplies

### **Rose Villa Biodiversity**

Eight years ago, a group of Rose Villa residents began an educational program that influenced land use policies in the community. Beginning with native landscapes in individual yards, the group worked with other residents, staff, and the Resident Council to create a culture where biodiversity is valued. As awareness increased, residents led initiatives to achieve Backyard Habitat certifications from the Audubon Society. Residents and staff also worked together to remove invasive plants, increase tree canopies, plant native species, transition to electric lawn equipment, and to replant grass areas with native groundcover.



## Waste Reduction and Recycling

How might we cut emissions and reduce waste at the same time? Follow the 3 Rs – Reduce, Reuse, Recycle. While facilities focus a lot of attention on recycling, reducing products that generate waste is the best first approach.

Facilities and residents can lead the way by adopting environmentally sound purchasing practices and promoting sustainable living practices.

### Reduce

- Buy only what you need or will use
- Purchase items without excess packaging and no single use plastics
- Bring your own cups and straws to events or when traveling
- Bring reusable shopping bags to events and for take home to-go meals
- Print on both sides of paper and where possible replace printed communications with electronic communications on public monitors and in-house websites
- Provide and encourage the use of reusable/returnable food and drink containers; special party supplies such as champagne flutes, punch bowls, fruit trays
- Reduce costs for sustainable cleaning and other supplies by collaborating with other residential facilities for bulk discounts
- Avoid environmentally wasteful decorative updates and appreciate the vintage aesthetics of a structure or defer or delay remodels where possible

### Reuse and Rehome

- Purchase better quality – long service, over cheap- replace often
- Accept donations from residents to provide art for hallways, and avoid unnecessary material purchases and updates such as “decorator art”
- Offer opportunities for a circular economy by providing space for resale/gifting of items that residents no longer need or want, and offer transportation to off-site treasure/resale stores
- Rehome replaced building materials to community groups to make them available for reuse

### **Reduce, Reuse, Recycle**

How can we get the most out of our stuff? Terwilliger Plaza, Willamette View, and Holladay Park Plaza have excellent resale venues where residents offer no longer needed items such as clothes, furniture, and housewares. Mirabella holds recycle tabling events in-house and at the farmer’s market. Across many facilities, residents buy products from businesses that share their values.

### **Dining Going Green**

Did you know that one reusable take-out container can replace 500 single-use containers? After 25 uses, reusable containers pay for themselves!

Holladay Park Plaza and Willamette View replaced non-recyclable takeout food containers with green plastic reusable containers. These containers are versatile for soups, desserts, and meals, and they are recyclable, non-toxic, microwavable, and safe for dishwashers. Containers conserve resources, save money, and they are popular – a win, win, win!

- Provide opportunities for the reuse of shipping and moving boxes
- Take reusable bags for produce and bulk items when shopping
- Think of more ways single use items can be reused; for example, plastic ware, plastic wrap, aluminum foil, can all be washed and reused, bags and scarves can be used to wrap gifts, bread bags make great pet waste bags, bags with handles can be donated to food banks
- Establish “exchange communities” for residents to share items and reduce consumption

### **Styrofoam Recycling: An Intergenerational Collaboration**

At Mary’s Woods a trial program to recycle Styrofoam turned permanent after the Green Team joined forces with the Lake Oswego High School Green Team. Logistics required management’s help siting collection points and often residents’ help assisting other residents. Students take the Styrofoam to Agilyx, a company in Tigard that repurposes it. Packing pellets are taken to the local UPS store.

### Recycle

- Participate in regional recycling programs with regular hauler and, for materials beyond their reach; offer recycling/responsible disposal of batteries, electronics, pharmaceuticals, Styrofoam and hard-to-recycle plastic
- Educate staff, residents, and service providers on recycling protocols and expectations
- Equip units with containers for recycling and composting and encourage their use; educate via facility website
- Support and promote BottleDrop program (dedicate BottleDrop funds to other campus programs)
- Purchase facility supplies (office and cleaning) made from recycled materials and in recyclable containers
- Purchase personal use supplies like paper towels and toilet paper made from recycled materials and sustainable sources, and stored in recyclable containers
- Ensure boxes used for shipping and storage are collapsed and recycled
- Have recycle table events at facilities and at local venues like farmers markets
- Provide compostable food containers when recyclable containers are not used

### **Green Grants Promote Sustainability at Willamette View**

Willamette View Green Fund offers grants for small projects that enhance the campus’ physical environment, save costs, and reduce carbon footprints. When the fund builds to \$10,000, the Green Team requests proposals from residents or staff. Green Fund grants recently paid for energy-saving LED lighting in two wood shops and returnable to-go containers for dining. The Green Fund grows through gifts, carbon-offset contributions, and the weekly redemption of drink container deposits.