



Our mission is to connect people to the natural world and cultivate a community of environmental stewards working together to build a greener and healthier planet.

January 31, 2022

Worthy Garden Club

Restoration, Conservation, and Education

A proposal is being drafted that describes operational and financial elements of two new initiatives for the Worthy Garden Club: nursery acquisition, and a conservation corps implementing projects designed to increase biodiversity, environmental health, and carbon capture and storage. This document provides a broad overview of the proposal, including a description of the purpose and need to move in this direction, and the opportunities to advance the vision of the Worthy Garden Club.

Mission

The staff of the Garden Club recently revised the mission statement to read:

Worthy Garden Club connects people to the natural world and cultivates a community of environmental stewards working together to build a greener and healthier planet.

The Worthy Garden Club has expanded to include a small-scale regenerative farm, native gardens, observatory, and Project Appleseed, an initiative to fund the planting of one million trees across the state. Project Appleseed fits our mission by addressing negative environmental effects of wild fires – specifically addressing climate change through increasing long-term CO₂ capture and storage. To date, Project Appleseed has donated \$613,057 in support of planting 648,269 trees. A recent program, Operation Lorax, is working with researchers, legal scholars, legislators, and non-governmental organizations (NGO's) on policy affecting forest management on state and private lands in Oregon.

Project Appleseed has been very successful supporting the work of planting trees in response to severe wildfires and human impacts. However, planting trees is one element of re-establishing a functional ecology. Carbon cycling and sequestration, habitat values, nutrient mineralization,

and respiration of greenhouse gases (i.e. CO₂, N₂O and CH₄) are highly dependent on vegetative diversity and soil microbial populations.

An ecosystem is often viewed as a whole greater than the sum of its parts, and those parts include a diversity in genetic, structural, and species composition, abiotic elements, and existing biological communities such as fungal and bacterial populations. Establishing an ecosystem that can effectively and efficiently provide long-term ecological benefits and mitigate continued human-caused climate impacts requires broadening the approach from planting trees to establishing complete replacement communities with the ability to establish many of the functional aspects of an undisturbed landscape. But trees are a primary driver of long-term carbon storage, form the basic structural component of many environments, and remain an essential part of an expanded effort.

Need

As the impacts of climate change become more extreme and as Oregon's natural resources continue to be strained by a rapidly growing population and urban expansion, the importance of conservation and restoration efforts is escalating. Ecosystem service and mitigation projects are increasing in size and complexity as the demand for impactful restoration and resource protection grows.

A commitment has been made by Oregon and the nation to restore ecological function through a number of large-scale efforts utilizing various funding mechanisms. For example, the State provided \$7.2 million in funding for the Federal Forest Restoration Program on federal lands in Oregon since 2015, and \$168.5 million dollars to meet the goals of the Oregon Plan for Salmon and Watershed drafted by the Oregon Watershed Enhancement Board (OWEB). And President Biden's Executive Order 140008 (2021) directs the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Commerce, to identify opportunities for participation in the goal of conserving 30 percent of our lands and water by 2030, and 50 percent by 2050. The Order explicitly calls for adoption of climate-smart agricultural and forestry practices that result in "...verifiable carbon reductions and sequestration...". Additionally, EO 140008 (section 215) includes an initiative to create a Civilian Climate Corps, mobilizing the "next generation of conservation and resilience workers" to conserve and restore lands and waters, increase

reforestation, increase carbon sequestration, protect biodiversity, and address the changing climate.

In response to these challenges, researchers have identified a need to protect 10.3 Mha of forest lands in the western U.S., in addition to the 17.5 Mha currently under protection (Law et al. 2021). Operation Lorax, started by Worthy Garden Club in 2021 is designed to contribute expertise, advocacy, and financial support for research and real-world application of methods intended to achieve measurable ecological benefits.

New Programs

Two new WGC programs are recommended to achieve the goals of Operation Lorax. The first is the purchase and operation of WinterCreek Nursery, the second is establishment of an active on-the-ground restoration and conservation program.

WinterCreek Nursery

WinterCreek is the largest native plant propagation nursery in central Oregon producing over 150,000 plants annually representing approximately 200 species in 117 genera. WinterCreek has provided plants and education to homeowners, contractors, and land managers for over 28 years and continues to be a critical local and regional resource.

Acquisition of the nursery offers many benefits to the Worthy Garden Club:

1. It establishes WGC as a leader in native plant conservation and expands the influence of the Club nationally through established native plant networks. WinterCreek is a nationally recognized leader in native plant propagation, design and implementation of natural areas restoration, and active proponent in the preservation and conservation of biodiversity on a regional scale. The nursery and its staff have received numerous awards in sustainability, project development, and ecological conservation in urban environments.
2. The nursery will provide plants for on-going and future restoration projects designed to address broad issues of biodiversity and carbon sequestration; two key components of Operation Lorax. Establishing WGC as a primary supplier of native plant species in support of our efforts will increase the effectiveness and efficiency of conservation and restoration projects proposed by WGC or contracted labor. The ability to direct the

species grown at the nursery, and ensure the quantities of each species needed for specific projects is available when needed will ensure timeliness and success of designed projects.

3. Provide income for the Worthy Garden Club. WinterCreek Nursery is very profitable (see financial analysis completed by George Stapish) and those profits can be used to support the operations and efforts of the Worthy Garden Club. Increasing funding options for the WGC is a primary goal. Acquisition of the nursery will provide significant revenue in support of the goals of the WGC and Operation Lorax.

Worthy Conservation

Establishment of an active in-house restoration program is essential to meeting the stated objectives of Operation Lorax. The ability of the WGC to directly improve biodiversity and address the widespread degradation of natural areas establishes the Garden Club as a regional leader in conservation and active participants in the efforts to address climate change. The degradation and depredation of Oregon's forests, rangelands, and watersheds has been increasing over the last century. If we are to protect threatened and endangered species, shift the trajectory of climate change, and revitalize our rural communities, habitat restoration is necessary and critical.

Operation Lorax already includes efforts to implement change in the management of state and private forest lands through legal, legislative, and policy efforts. The WGC is currently funding work by key researchers, supporting the establishment of the University of Oregon law school's Environmental and Natural Resources Law Center, and working with attorneys, legislators and NGO's on implementing change in the management of state and private forest lands. An active on-the-ground restoration program to restore and enhance biodiversity and ecological values in forest, desert, riparian, and aquatic environments throughout Oregon and the west provides a significant contribution to improving regional ecological health. The program will also help reach the broad UN Climate Change goals identified during the COP 26 meetings in Glasgow.

We are already activity engaged in working with researchers from Universities, The Nature Conservancy, Oregon Wild, Audobon Society and several other organizations on developing restoration methods in specific ecosystems and protocols for quantifying benefits in

biodiversity, habitat value, and carbon capture and storage. Operating an active ecological restoration division of the Worthy Garden Club magnifies the impact of our work.

An active restoration program will:

1. Provide educational opportunities of the WGC to include on-the-ground training and certification of students in environmental conservation and restoration, and extensive use of university interns. This program will expand the regional exposure and effectiveness of the Worthy Garden Club and become a key identifying element of the conservation work of the WGC.
2. Ensure restoration efforts are implemented and meet the intent of the WGC. Currently, funds are donated to conservation organizations to support their efforts in active restoration and conservation. However, the percentage of those funds used for administrative costs, marketing, or other uses is unknown. Managing all aspects of a restoration project from planning through monitoring will ensure appropriate use of funding.
3. Provide opportunities for long-term monitoring of completed projects. Monitoring the effectiveness of work designed to increase biodiversity and carbon storage is rarely completed, a deficit which limits the opportunity to modify protocols and methodologies that help ensure the deliverables on a project. By completing projects in-house, the WGC can efficiently monitor and document long-term benefits of restoration efforts, and develop techniques that maximize our ability to address critical ecological and climate change issues.

Funding

Several approaches for funding these efforts are proposed.

1. WinterCreek Nursery is self-supporting and will provide income to the non-profit through plant sales and consultation fees.
2. A contracted Grant Writer is recommended to increase funding for all WGC initiatives (farm/garden, observatory, Operation Appleseed, and Lorax).
3. Funding through restoration education and project implementation. Many students interested in environmental management and ecological restoration are hesitant or unable to invest in a four-year university education, but have expressed interest in vocational training to gain knowledge and experience in restoration ecology. Each

student would pay a portion of the costs associated with education provided by the restoration program. The model is grounded in the organization *Ecological Workforce* (www.ecologicalworkforce.org), a restoration program based in Santa Rosa, California. Additionally, funding will be provided through donations from land owners and managers contracting the Worthy Garden Club for restoration and conservation projects. Property owners will apply for assistance from the WGC, and if approved, will be asked to donate a portion of the costs associated with the project to the non-profit. The owner receives a tax deduction, and the donation helps offset the expenses associated with project design, construction, management, and monitoring. Grants, donations, and other sources will provide additional funding.

A complete operation plan will be developed after the concept is approved by the Board.

The Worthy Garden Club has an opportunity to establish itself as a regional leader and resource in natural areas conservation, restoration, and climate change policy. We are presently engaged in active efforts to affect real change in resource management and improving the habitat values of commercial lands, and in educating the public in sustainable and regenerative practices. These new programs constitute an elemental shift in the effectiveness of our work and ensures that the WGC provides a legacy of conservation.

Richard Martinson, PhD
Executive Director, Worthy Garden Club
541-639-4776 x221 p.
541-948-0661 c.
Rick@worthygardenclub.com
345 NE Bellevue Dr., Bend, Oregon 97701

