# University of Washington's Society for Ecological Restoration Native Plant Nursery

## Business Plan for 2018 - 2023

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#### **Executive Summary**

The Native Plant Nursery of the Society for Ecological Restoration UW Student Guild (SER-UW), established in 2013, provides a local and sustainable source of native plant material for student ecological restoration projects in the Union Bay Natural Area and Yesler Swamp, as well as for many restoration sites on the University of Washington campus and throughout the Greater Seattle region. Located at the Center for Urban Horticulture, it has been a much-needed presence as a hub for student involvement in the applications of horticulture and restoration beyond what is available through coursework.

Since its inception 5 years ago, the nursery has never had a coherent production or financial strategy, and the purpose of this document is to create a plan that will allow the nursery to build on its past production and sales successes as it focuses on growth and financial sustainability over the next five years. Education remains a vital part of the nursery's mission, and it will continue to work closely with the Master of Environmental Horticulture program, as well as continue to offer internships and volunteers opportunities to UW students. The nursery also sees significant room for improvement in its marketing strategy, and it will aim to increase its visibility on and off campus within the next year. Lastly, the nursery will continue to uphold its commitment to achieving environmental, social, and economic sustainability, as it pursues funding to secure a permanent future within the University of Washington.

#### **Mission Statement**

To be the missing link for native plant materials needed in student and campus-based restoration projects, and to be an educational hub for environmental horticulture at the University of Washington.

#### Vision

Become the sole source of locally produced native plants for student projects and on-campus restoration sites, offer students a unique, hands-on experiential learning opportunity of best nursery practices for sustainable native plant production, and continue to improve those practices through research and collaboration with students and community partners.

#### **Products and Services**

#### **Plant Materials**

The nursery currently grows a wide variety of container trees, shrubs, herbaceous plants, and graminoids native to the Puget Lowland Region. Ferns, though not currently grown at the nursery, are oftentimes acquired through salvage events and made available for purchase. All of these species are commonly used in student and community restoration projects throughout the greater Seattle region.

#### Education

The nursery offers a unique experiential learning experience unavailable to students through normal course offerings. The nursery is currently and traditionally managed by one or two graduate students, who gain valuable experience in horticultural production, team leadership, and project management. Internships for undergraduate students are offered every quarter, and each intern is responsible for completing an individual applied or research project. All of which are tailored to their interests and designed to further the mission and goals of SER-UW nursery. Throughout the autumn, winter, and spring quarters the nursery hosts weekly volunteer work parties whereby students learn sustainable native plant production techniques through hands-on work. Multiple service learning positions are available each quarter through the Carlson Center, and these positions offer a much more enriching experience compared to one-time volunteers. The nursery is also used as an outdoor laboratory for the Native Plant Production course (ESRM 412) listed in the School of Environmental and Forest Sciences.

#### **Goals and Objectives**

As a growing student run organization, the SER-UW nursery has defined several goals relating to production, education, and sustainability that will allow it to establish itself firmly within the University of Washington over the next five years. These goals and objectives are as follows:

#### Goals

Goal 1: To produce quality and genetically diverse plants appropriate for the Puget Lowland Region.

- ➤ To produce and sell 5,000 quality plants in 2019, and to increase that number incrementally by 500 plants every year till 2023.
- ➤ To produce 100% of all plant material needed for Restoration of North American Ecosystems (ESRM 473) for the next five years.
- ➤ To produce 90% of all container plant material needed for the REN Capstone series (ESRM 462-4) by 2020.
- ➤ To produce restoration-ready plants for use in the Union Bay Natural Area and Yesler Swamp.
- > To host two public plant sales every year for the next five years.
- > To build onto existing partnerships and to establish new partnerships with community organizations in need of native plant materials.

Goal 2: To produce native plants using an Integrated Pest Management (IPM) approach.

- By using an IPM approach, the nursery will use fewer chemical pesticides reducing carbon pollution and limiting negative impacts to the surrounding ecosystem.
- An IPM approach will help reduce production costs for the nursery, and it will help to ensure long-term survival of native plants after outplanting.

Goal 3: To provide a unique, hands-on learning experience for students of the University of Washington.

- ➤ To offer internships to at least 8 undergraduate students every year for the next five years.
- ➤ To offer service learning opportunities through the Carlson Center to at least 15 undergraduate students every year for the next five years.
- > To acquire a minimum of 1000 volunteer hours every year for the next five years.
- ➤ To partner with the Native Plant Production (ESRM 412) course every spring quarter.

Goal 4: To increase visibility and awareness of the SER-UW on campus and within the Greater Seattle region.

- ➤ To create permanent signage at the hoophouse, at SER-UW project sites, and around the UWBG by spring 2019.
- ➤ To create movable signs to be placed along Mary Gates Memorial Dr. NE and NE 45th St. during public plant sales by fall 2018.
- > To develop a protocol for increasing and sustaining our social media presence.
- > To create posters to hang in the UW Grounds workshop.

Goal 5: To advance toward environmental, social, and economic sustainability.

To continue to uphold the GOLD standard of the UW Green Dawgs RSO Certification indefinitely.

- ➤ To research and improve best nursery practices in order to lessen environmental impacts of plant production.
- > To impart our knowledge of sustainable practices to students, to the native nursery production community, and to the Greater Seattle region.
- ➤ To achieve economic sustainability and fund a full-time manager position by pursuing donations and endowments from outside of the University of Washington, while continuing to actively build and strengthen partnerships within the University.

#### **Long-Term Strategic Objective**

The nursery has set a goal to become financially self-sufficient by 2024. A combination of revenue, gifts, and endowments will allow the nursery to fund a full-time manager, an assistant manager, and paid summer internships, as well as adequately funding core functions.

#### **Strategic Analysis**

#### **SWOT**

As the nursery continues to grow and advance toward its long-term strategic objective, it will be necessary to gauge progress, seize upon opportunities, and respond to changing trends in the market. By aligning our goals with these factors, the nursery can continue to maximize potential and minimize threats/weaknesses. Listed below is a SWOT analysis constructed by the SER-UW nursery management in 2018, and it will serve as a guide for future analysis and updates.

| INTERNAL FACTORS  |   |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| STRENGTHS (+)   | WEAKNESSES (-)  |  |  |  |  |  |  |  |
| <ul> <li>Student-run</li> <li>Center for Urban Horticulture (facilities and resources)</li> <li>UW affiliation (courses and research)</li> <li>World-renowned restoration projects (UBNA and REN Capstone)</li> <li>Volunteers (numbers and capability)</li> <li>Growing reputation</li> <li>Passionate community</li> <li>Unique experiential learning</li> <li>Location</li> <li>Rent agreement with UWBG</li> <li>Access to expertise, education, and knowledge</li> <li>Invested professors and UWBG staff</li> <li>UW Green Dawgs Certification</li> <li>Public plant sales</li> <li>Internships</li> <li>Master of Environmental Horticulture students</li> </ul> | <ul> <li>Limited financial resources</li> <li>Quick graduate student turnover (loss of institutional knowledge in production and education)</li> <li>Production space (low-tech and limited in size)</li> <li>Shared space</li> <li>Lack of collaboration with the rest of SEFS</li> <li>Marketing and brand awareness on campus</li> <li>Marketing and advertising of public plant sales</li> <li>Reliance on grants and professorship funding</li> <li>Lack of expertise growing specific plant species</li> <li>Cost of graduate students</li> <li>Lack of community partners</li> <li>No full-time manager</li> </ul> |  |  |  |  |  |  |  |

| EXTERNAL FACTORS   |   |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|
| OPPORTUNITIES (+)  | THREATS (-)   |  |  |  |  |  |  |  |
| <ul> <li>UBNA and Yesler Swamp - UWBG restoration projects</li> <li>UW Grounds</li> <li>Green Seattle Partnership</li> <li>Student restoration projects</li> <li>520 Mitigation funding</li> <li>Space to expand into</li> <li>Rhizome and bulb production beds</li> <li>Local tribal restoration</li> <li>Public education courses</li> <li>Research of plant production techniques</li> <li>Partnership with the Native Plant Society</li> </ul> | <ul> <li>Competition with for-profit nurseries</li> <li>Local native plant sales</li> <li>Ornamental (non-native) plant market</li> <li>Local rabbit population (crop damage)</li> <li>Future UWBG Director</li> <li>New SEFS Director</li> <li>Future of the MEH program</li> <li>Budget cuts in the College of the Environment</li> <li>Younger generation of students are less interested in environmental horticulture</li> </ul> |  |  |  |  |  |  |  |

#### **Sales and Marketing Strategy**

#### **Target Customers**

- Students working on restoration projects
- UWBG restoration of the Union Bay Natural Area and Yesler Swamp
- UW Grounds improvements
- Members of the public that own property in the Greater Seattle Region
- Government and nonprofit community partners outside of UW (ex. Green Seattle
   Partnership and the City of Sammamish)

#### **Pricing Structure**

The nursery operates as a not-for-profit wholesale nursery for students and for the UW Botanic Gardens. Governments and other nonprofit organizations purchasing plants in bulk also receive wholesale pricing (50% of retail pricing). Sales are closed to the general public except during the two plant sales held every year (usually May and November), where plants are sold at retail value. Retail pricing is determined through comparisons with local retail native plant nurseries.

#### Distribution

The nursery does not deliver plants, and customers are expected to pick up plants directly from the nursery located at the Center for Urban Horticulture.

#### **Sales Projection**

|               | Units sold |      | Projected Units Sold |      |       |       |       |       |  |  |
|---------------|------------|------|----------------------|------|-------|-------|-------|-------|--|--|
| Form          | 2016       | 2017 | 2018                 | 2019 | 2020  | 2021  | 2022  | 2023  |  |  |
| Pack of Bulbs | 0          | 20   | 0 (40)               | 40   | 50    | 55    | 60    | 70    |  |  |
| Plug          | 0          | 935  | 1504 (1800)          | 2100 | 2350  | 2600  | 2850  | 3100  |  |  |
| 4"            | 260        | 168  | 274 (450)            | 600  | 770   | 850   | 930   | 1000  |  |  |
| 1/2 Gallon    | 115        | 480  | 234 (370)            | 200  | 0     | 0     | 0     | 0     |  |  |
| 1 Gallon      | 623        | 948  | 937 (1200)           | 1400 | 1650  | 1800  | 1950  | 2100  |  |  |
| 2+ Gallon     | 58         | 70   | 92 (140)             | 160  | 180   | 195   | 210   | 230   |  |  |
| Total         | 1056       | 2621 | 3121 (4000)          | 5000 | 5500* | 6000* | 6500* | 7000* |  |  |

<sup>\*</sup>These figures do not include plants grown for the 520 Mitigation

#### **Advertising and Promotion**

- Student plant purchases (Plant Materials): The nursery has already formed partnerships with the two main courses in SEFS that complete restoration projects for course requirements (ESRM 462-4 and ESRM 473), but managers are still responsible for contacting professors and teaching assistants prior to plant selection. Additionally, managers should visit these classes and invite students to tour the nursery, and this will serve to reinforce the nursery's role as a resource available to students assisting them in achieving their restoration goals.
- Public plant sales (Plant Materials): The nursery organizes two plant sales
  every year, one in late spring and another in late fall. These plant sales are a
  great opportunity to increase revenue and to connect with the greater Seattle
  community. The public has reliably been willing to support student-run projects,
  and the nursery is no exception. Managers and interns are responsible for ad

campaigns to get the word out months in advance of the sale date. Exit polls from past plant sales have identified Facebook as the primary method of attracting customers to the event, but the UWBG Event Calendar, email notifications, paper flyers, and signage along the CUH access roads are all good ways to increase public awareness.

- Community restoration partners (Plant Materials): In order for the nursery to
  become a permanent and economically sustainable entity at the University of
  Washington, it is critical for the nursery to build partnerships with governments
  and nonprofit organizations involved in restoration work outside of the university
  system. Nursery managers will be responsible for establishing these connections,
  determining their plant material needs, and maintaining a good standing
  relationship with them.
- Volunteer events (Education): SER-UW sends out newsletters through its email listserv for all weekly work parties and special events. Regular class visits at the start of every quarter are another important way to attract volunteers to the nursery.
- Service Learning (Education): The nursery posts these opportunities to the
   Carlson Center website several weeks prior to the start of the quarter.
- Internships (Education): Nursery internship advertisements are sent out a month prior to the start of every new quarter.

#### **Human Resources Plan**

The SER-UW nursery team is currently lead by the nursery manager and the assistant manager, and both report to the nursery Faculty Advisor, Dr. Jon Bakker, and the Interim Director of the UW Botanic Gardens, Fred Hoyt. Traditionally, these managerial roles have come from within the ranks of the Master of Environmental Horticulture graduate students. Looking forward over the next five years, and in order to keep up with production and sales goals, the nursery manager position will inevitably need to become a full-time (or three-quarter time), non-student staff position. When this switch in the management structure happens, the nursery should consider offering paid student staff positions to assist the manager; much like the UW Farm. Reporting to the manager and assistant manager every quarter are two to three unpaid interns who assist in vital nursery functions. Rounding out the team every quarter are service learning volunteers and various other student volunteers.

#### Summary of personnel and salary:

- Management Structure Option 1
  - Nursery Manager Graduate student (\$13,789.84/quarter; includes salary, tution, and benefits)
  - Nursery Assistant Manager Graduate student (\$31.30/hr)
- Management Structure Option 2
  - Nursery Manager Non-student staff (\$43,875/yr)
  - Student Nursery Staff Undergraduate or graduate student (\$18.38/hr)
- Non-paid student help

o Interns, Service Learners, and Volunteers

#### **Production Plan**

#### **Production Space**

The SER-UW nursery is located at the Center for Urban Horticulture, and the UW Botanic Gardens provides this space to the nursery in exchange for volunteer hours from the greater SER-UW Student Chapter. Volunteer events are often led by the UBNA Ranger, and recruitment is handled through SER-UW. Current space allotment is around 3,200 sq ft, which includes a hoophouse structure (~1,400 sq. ft.), an outdoor growing area (~1,600 sq. ft.), a coppice garden for vegetative production and several bulb increase beds (~200 sq. ft. combined). UWBG has agreed to allow the nursery to expand its outdoor growing space in the near future, and pending potential grant awards, this could be done as early as fall 2018. Expansions would include an increase to the outdoor container growing area and multiple rhizome production beds (~1500 sq. ft. combined).

#### **Equipment**

The SER-UW nursery is already a fully functioning native plant nursery and most of the equipment and supplies needed for production were acquired through previous grants and in-kind donations. Current annual recurring costs are estimated at \$1700, and the nursery foresees an increase in these costs as production scales up. See appendix for a detailed summary of expected recurring costs.

#### **Financial Plan**

#### **Income Statements**

|                        | Optimistic Income Statement |         |          |          |          |          |          |          |  |  |  |
|------------------------|-----------------------------|---------|----------|----------|----------|----------|----------|----------|--|--|--|
| Revenue                | 2016                        | 2017    | 2018     | 2019     | 2020     | 2021     | 2022     | 2023     |  |  |  |
| Capstone               | \$432                       | \$1,094 | \$3,350  | \$6,000  | \$6,000  | \$6,000  | \$6,000  | \$6,000  |  |  |  |
| NA Resto               | \$442                       | \$1,868 | \$2,219  | \$2,450  | \$2,450  | \$2,450  | \$2,450  | \$2,450  |  |  |  |
| Plant Sales            | \$2,530                     | \$4,675 | \$4,500  | \$5,175  | \$5,951  | \$6,844  | \$7,871  | \$9,051  |  |  |  |
| UWBG (UBNA<br>& YS)    | \$463                       | \$1,193 | \$1,000  | \$2,600  | \$1,000  | \$1,000  | \$1,000  | \$1,000  |  |  |  |
| 520 Mitigation         | -                           | -       | _        | _        | \$28,598 | \$25,738 | \$23,164 | \$20,848 |  |  |  |
| Other                  | \$1,114                     | \$812   | \$1,200  | \$1,440  | \$1,728  | \$2,074  | \$2,488  | \$2,986  |  |  |  |
| Total                  | \$4,981                     | \$9,641 | \$12,269 | \$17,665 | \$45,727 | \$44,106 | \$42,973 | \$42,335 |  |  |  |
| Expenditures           |                             |         |          |          |          |          |          |          |  |  |  |
| Supplies and Equipment | -                           | \$1,200 | \$1,400  | \$1,700  | \$3,500  | \$3,325  | \$3,159  | \$3,001  |  |  |  |
| Square Fees            | \$119                       | \$234   | \$307    | \$442    | \$1,143  | \$1,103  | \$1,074  | \$1,058  |  |  |  |
| Total                  | \$119                       | \$1,434 | \$1,707  | \$2,142  | \$4,643  | \$4,428  | \$4,233  | \$4,059  |  |  |  |
| Net Sales              | \$4,861                     | \$8,206 | \$10,562 | \$15,523 | \$41,084 | \$39,678 | \$38,740 | \$38,276 |  |  |  |

#### **Optimistic Income Statement Assumptions**

Capstone: Max enrollment (75 students)
NA Resto: Max enrollment (70 students)
Plant sales: 15% growth in sales every year

UWBG: Increased need for restoration plants in UBNA and Yesler Swamp

**520 Mitigation**: A portion of the mitigation funding will go to replacement plants, and the nursery is perfectly poised to grow these plants. Exact amount of funding available is still uncertain. These figures represent a 15% replacement of mitigation plantings, with a 10% decline in number of units produced annually after 2020.

**Other**: Includes UW Grounds and outside community partners. 20% growth in sales every year. **Expenditures**: Expenditures range from 7% - 10% of revenue, decreasing in percentage as number of units produced increases.

| Most Likely Income Statement |         |         |          |          |          |          |          |          |  |  |
|------------------------------|---------|---------|----------|----------|----------|----------|----------|----------|--|--|
| Revenue                      | 2016    | 2017    | 2018     | 2019     | 2020     | 2021     | 2022     | 2023     |  |  |
| Capstone                     | \$432   | \$1,094 | \$3,350  | \$4,500  | \$4,500  | \$4,500  | \$4,500  | \$4,500  |  |  |
| NA Resto                     | \$442   | \$1,868 | \$2,219  | \$2,100  | \$2,100  | \$2,100  | \$2,100  | \$2,100  |  |  |
| Plant Sales                  | \$2,530 | \$4,675 | \$4,000  | \$4,400  | \$4,840  | \$5,324  | \$5,856  | \$6,442  |  |  |
| UWBG (UBNA &<br>YS)          | \$463   | \$1,193 | \$500    | \$2,100  | \$500    | \$500    | \$500    | \$500    |  |  |
| 520 Mitigation               | -       | -       | -        | _        | \$19,067 | \$17,160 | \$15,444 | \$13,900 |  |  |
| Other                        | \$1,114 | \$812   | \$1,000  | \$1,150  | \$1,323  | \$1,521  | \$1,749  | \$2,011  |  |  |
| Total                        | \$4,981 | \$9,641 | \$11,068 | \$14,250 | \$32,330 | \$31,105 | \$30,150 | \$29,453 |  |  |
| Expenditures                 |         |         |          |          |          |          |          |          |  |  |
| Supplies and Equipment       | -       | \$1,200 | \$1,400  | \$1,600  | \$2,500  | \$2,375  | \$2,256  | \$2,143  |  |  |
| Square Fees                  | \$119   | \$234   | \$277    | \$356    | \$808    | \$778    | \$754    | \$736    |  |  |
| Total                        | \$119   | \$1,434 | \$1,677  | \$1,956  | \$3,308  | \$3,153  | \$3,010  | \$2,880  |  |  |
| Net Sales                    | \$4,861 | \$8,206 | \$9,391  | \$12,294 | \$29,021 | \$27,953 | \$27,140 | \$26,573 |  |  |

#### **Most Likely Income Statement Assumptions**

**Capstone**: Average enrollment (60 students) **NA Resto**: Average enrollment (60 students) **Plant sales**: 10% growth in sales every year

**UWBG**: Average need for restoration plants in UBNA and Yesler Swamp

**520 Mitigation**: A portion of the mitigation funding will go to replacement plants, and the nursery is perfectly poised to grow these plants. Exact amount of funding available is still uncertain. These figures represent a 10% replacement of mitigation plantings, with a 10% decline in number of units produced annually after 2020.

**Expenditures**: Expenditures range from 7% - 10% of revenue, decreasing in percentage as number of units produced increases.

|                        | Pessimistic Income Statement |         |          |          |          |          |          |          |  |  |  |
|------------------------|------------------------------|---------|----------|----------|----------|----------|----------|----------|--|--|--|
| Revenue                | 2016                         | 2017    | 2018     | 2019     | 2020     | 2021     | 2022     | 2023     |  |  |  |
| Capstone               | \$432                        | \$1,094 | \$3,350  | \$3,000  | \$3,000  | \$3,000  | \$3,000  | \$3,000  |  |  |  |
| NA Resto               | \$442                        | \$1,868 | \$2,219  | \$1,575  | \$1,575  | \$1,575  | \$1,575  | \$1,575  |  |  |  |
| Plant Sales            | \$2,530                      | \$4,675 | \$3,500  | \$3,675  | \$3,859  | \$4,052  | \$4,254  | \$4,467  |  |  |  |
| UWBG (UBNA<br>& YS)    | \$463                        | \$1,193 | \$250    | \$1,850  | \$250    | \$250    | \$250    | \$250    |  |  |  |
| 520 Mitigation         | -                            | -       | -        | -        | \$9,534  | \$8,581  | \$7,723  | \$6,950  |  |  |  |
| Other                  | \$1,114                      | \$812   | \$1,000  | \$1,100  | \$1,210  | \$1,331  | \$1,464  | \$1,611  |  |  |  |
| Total                  | \$4,981                      | \$9,641 | \$10,319 | \$11,200 | \$19,428 | \$18,788 | \$18,266 | \$17,853 |  |  |  |
| Expenditures           |                              |         |          |          |          |          |          |          |  |  |  |
| Supplies and Equipment | -                            | \$1,200 | \$1,400  | \$1,400  | \$1,700  | \$1,615  | \$1,534  | \$1,458  |  |  |  |
| Square Fees            | \$119                        | \$234   | \$258    | \$280    | \$486    | \$470    | \$457    | \$446    |  |  |  |
| Total                  | \$119                        | \$1,434 | \$1,658  | \$1,680  | \$2,186  | \$2,085  | \$1,991  | \$1,904  |  |  |  |
| Net Sales              | \$4,861                      | \$8,206 | \$8,661  | \$9,520  | \$17,242 | \$16,704 | \$16,275 | \$15,949 |  |  |  |

#### **Pessimistic Income Statement Assumptions**

Capstone: Low enrollment (45 students)
NA Resto: Low enrollment (45 students)
Plant sales: 5% growth in sales every year

UWBG: Low need for restoration plants in UBNA and Yesler Swamp

**520 Mitigation**: A portion of the mitigation funding will go to replacement plants, and the nursery is perfectly poised to grow these plants. Exact amount of funding available is still uncertain. These figures represent a 5% replacement of mitigation plantings, with a 10% decline in number of units produced annually after 2020.

**Expenditures**: Expenditures range from 7% - 10% of revenue, decreasing in percentage as number of units produced increases.

#### **In-Kind Value**

| In-Kind            | 2016     | 2017     | 2018     | 2019     | 2020     | 2021     | 2022     | 2023     |
|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Rent<br>(+water)   | \$10,800 | \$13,680 | \$16,560 | \$18,216 | \$18,216 | \$20,038 | \$20,038 | \$20,038 |
| Volunteer<br>Labor | -        | \$26,720 | \$26,720 | \$28,056 | \$29,459 | \$30,932 | \$32,478 | \$34,102 |
| Intern<br>Labor    | -        | \$21,643 | \$19,238 | \$19,238 | \$21,643 | \$21,643 | \$24,048 | \$24,048 |
| Total              | \$10,800 | \$62,043 | \$62,518 | \$65,510 | \$69,318 | \$72,613 | \$76,564 | \$78,188 |

#### **In-Kind Value Assumptions**

**Rent:** The SER-UW Nursery is anticipating an expansion of production space in 2019 & 2020. **Volunteer Labor:** The value of a volunteer is determined by the United Way of King County, <a href="https://www.uwkc.org/volunteering/volunteers-rock-our-world/">https://www.uwkc.org/volunteering/volunteers-rock-our-world/</a>, and these figures assume a 5% increase in volunteer hours every year.

**Intern Labor:** The value of an intern is valued using the same United Way of King County figure, and as production scales up in the nursery there will be an increased need to offer more internship positions. These are reflected in increases in internships for 2020, 2021, & 2022.

#### **Position Salaries**

| Position<br>Title             | Hourly<br>Pay | Hours    | Salary<br>Cost | Benefit<br>% | Benefit<br>Cost | Tuition  | Total Cost | Notes                                   |
|-------------------------------|---------------|----------|----------------|--------------|-----------------|----------|------------|---|
| Nursery<br>Manager            | N/A           | 100% FTE | \$43,875       | 30.5%        | \$19,225        | N/A      | \$63,100   | Salary comparable to<br>UW Farm Manager |
| Graduate<br>Student RA        | N/A           | 50% FTE  | \$21,687       | 18.4%        | \$3,801         | \$15,882 | \$41,370   | Cost per Academic<br>Year               |
| Graduate<br>Student<br>Summer | \$31.30       | 200      | \$6,260        | 20.7%        | \$1,296         | N/A      | \$7,556    | 20 hrs / week for summer quarter        |
| Student<br>Staff              | \$18.38       | 100      | \$1,838        | 18.4%        | \$338           | N/A      | \$2,176    | 10 hrs/ week / quarter                  |

Since the nursery management may be in flux over the next five years, this table is provided to represent the different costs of potential student and staff positions.

**Appendix - Recurring Expenses** 

| Repurchase<br>Rate | Item Description                  | Unit           | Quantity | Price    | Extended Price (+10% Tax) |
|--------------------|-----------------------------------|----------------|----------|----------|---------------------------|
| 1 year             | Clorox Concentrated Bleach        | 64oz (x2)      | 2        | \$15.45  | \$33.99                   |
| 1 year             | Fine Bark Mulch                   | Cubic Yard     | 6        | \$49.00  | \$323.40                  |
| 1 year             | Fish and Guano Liquid Fertilizer  | Gallon         | 1        | \$25.00  | \$27.50                   |
| 1 year             | GrowCo (Seattle Loop Compost)     | .25 cubic yard | 1        | Donation | \$0.00                    |
| 1 year             | Horticultural Oil                 | Quart          | 1        | \$13.00  | \$14.30                   |
| 1 year             | Irrigation Supplies               | Assorted       | 1        | \$50.00  | \$55.00                   |
| 1 year             | Latex Gloves (M & L)              | Box of 100     | 2        | \$10.50  | \$23.10                   |
| 1 year             | Office Supplies                   | -              | 1        | \$20.00  | \$20.00                   |
| 1 year             | Osmocote 13-10-13                 | 50# bag        | 1        | \$70.00  | \$77.00                   |
| 1 year             | Peat, Compressed                  | 3.8 cubic feet | 4        | \$18.00  | \$79.20                   |
| 1 year             | Pot Label 5" (color)              | Box of 1000    | 1        | \$18.95  | \$20.85                   |
| 1 year             | Printing                          | -              | 1        | \$30.00  | \$30.00                   |
| 1 year             | Rubbing Alcohol                   | 1 gallon       | 1        | \$29.00  | \$31.90                   |
| 1 year             | Safer Insecticidal Soap           | 1 gallon       | 1        | \$70.00  | \$77.00                   |
| 1 year             | Seeds                             | Assorted       | 1        | \$150.00 | \$165.00                  |
| 1 year             | Snacks for Work Parties           | Assorted       | 30       | \$12.00  | \$396.00                  |
| 2 years            | Coarse Sand                       | 0.5 cubic feet | 1        | \$5.00   | \$2.75                    |
| 2 years            | Gloves (S, M, & L)                | Pack of 12     | 3        | \$3.95   | \$6.52                    |
| 2 years            | Hose - 50'x 3/4"                  | -              | 1        | \$40.00  | \$22.00                   |
| 2 years            | Pruner - Long Nose                | -              | 3        | \$12.95  | \$21.37                   |
| 2 years            | Pruner - Standard                 | -              | 3        | \$23.95  | \$39.52                   |
| 2 years            | Shut-Off, Brass Wye               | -              | 1        | \$5.50   | \$3.03                    |
| 2 years            | Watering Breaker - Aluminum       | -              | 1        | \$12.95  | \$7.12                    |
| 2 years            | Watering Wand - 36"               | -              | 1        | \$8.50   | \$4.68                    |
| 3 years            | China Marker                      | -              | 10       | \$1.25   | \$4.58                    |
| 3 years            | Mesh Cloth                        | -              | 1        | \$10.00  | \$3.67                    |
| 5 years            | Bamboo Stakes 36" (green dyed)    | Bundle of 500  | 1        | \$35.00  | \$7.70                    |
| 5 years            | Pump Sprayer                      | 1 gallon       | 1        | \$42.00  | \$9.24                    |
| 5 years            | Wheelbarrow                       | -              | 1        | \$65.00  | \$14.30                   |
| 6 years            | Conetainer Pots                   | Case of 1100   | 1        | \$88.00  | \$16.13                   |
| 6 years            | Polyethylene Film                 | -              | 1        | \$481.50 | \$88.28                   |
| 6 years            | Shade Cloth                       | -              | 1        | \$336.00 | \$61.60                   |
| Total Annual       | Supply and Equipment Expenditures |                | •        |          | \$1,686.71                |