Request for Proposal & Bid
2020-2023 Habitat Restoration Services Master Contract
Long Tom Watershed Council

Posted: January 24, 2020

Proposals must include completed and signed copies of Attachment 1 (Contract) and Exhibit B of Attachment 1 (Contractor bid prices) and a resume/statement of qualifications. Proposals must be submitted by February 12, 2020 to the Long Tom Watershed Council (mailed, hand delivered, or emailed).

Contracts will be signed with selected Contractors on or before February 17, 2020

Contracting Process:

1) Interested Contractors bid on any or all of the work tasks described in this document by signing and submitting **Attachment 1: Habitat Restoration Master Services Contract,** filling out unit bid prices in **Exhibit B of Attachment 1**, and submitting a resume or reference list for similar work the Contractor has completed by 5 p.m. on January 31, 2020.
2) Council signs master contract with selected Contractor(s) on or before February 14, 2020.
3) Council issues work orders to selected Contractor(s) for specific work at project sites between February 2020 and February 17, 2023.
4) Contractor(s) complete(s) work by date specified on work order.
5) Council pays Contractor(s) within 30 days of receipt of invoice following satisfactory completion of work order.

Minority-owned, women-owned, bilingual, and emerging small businesses are highly encouraged to submit bids for this RFP, as are businesses that support traditional ways of knowing and use traditional knowledge and techniques in restoring compromised landscapes. No proposal in response to this solicitation will be discriminated against on the grounds of race, color, national origin, age, disability, sex, gender identity, sexual orientation, religion, political beliefs, income status, marital status, or familial or parental status.

List of Attachments:

Attachment 1: Habitat Restoration Master Services Contract (Includes Exhibits A, B, C, D, and E)
Attachment 2: Overview Map of Long Tom Watershed

Questions and Proposals/Bids shall be directed to:
Jed Kaul, Long Tom Watershed Council
751 S. Danebo Avenue
Eugene, OR 97402
jkaul@longtom.org
Cell: 541-954-4284

Project Description
The Long Tom Watershed Council (hereafter referred to as "LTWC" or "the Council") has been working with public and private landowners to restore riparian, wetland, prairie, and oak habitats since 2001. Sites included in this project will be located throughout the 440 square mile Long Tom Watershed and at adjacent sites that are part of the Council's larger service area. See Attachment 2 for a map of LTWC service area.

Contractors selected to work with LTWC through this contract may implement a variety of habitat restoration activities in pasture, riparian, riverine, wetland, oak woodland, oak savanna, mixed forest, and prairie habitats. The specifications of the activities are described in detail in section 4 of exhibit A of attachment 1 (page 16 of this RFP). **Note that the council strives to use adaptive management and understands that best practices are constantly evolving. As such, the Council will work with contractors to implement restoration using the most up-to-date techniques and will adjust the specifications listed as needed with contractors prior to work order issuance.**

Table 1. Project Timeline

Task	Jan-Feb, 2020	February, 2020 – February 17, 2023
Proposal and Master Contract submission to LTWC	Wednesday, February 12, 2020 at 5 p.m.	
LTWC sends signed copies of Attachment 1 to selected Contractors	On or before Friday, February 17, 2020	
LTWC issues work orders for habitat restoration activities at project sites within LTWC service area		X

Contractor selection and contract signing
Interested Contractors will present the Council with a proposal by 5 p.m. on February 12, 2020. At minimum, the proposal must include the following items:

- A completed and signed version of **Attachment 1: Habitat Restoration Master Services Contract**. The Master Contract must be signed and prices for each task the contractor wishes to bid on should be listed in **Exhibit B**.
- A resume or list of references for similar work the Contractor has completed (**must include current contact information for previous clients so Council can check references**)

The Council will review proposals and select Contractors for the proposed work on or before **February 17, 2020.** The Council will choose Contractors based on their previous experience with similar work, reports from previous clients, and the prices offered by the Contractor. The Council will sign and return **Attachment 1** to selected Contractors.

Funding & Partners
The work described herein is funded by grants awarded to LTWC from the Oregon Watershed Enhancement Board, the Oregon Department of Fish and Wildlife, the Bonneville Power Administration, Meyer Memorial Trust, the U.S. Fish and Wildlife Service, and other funders. Cost-shares from programs administered by the Farm Services Agency and Natural Resources Conservation Service may contribute funds to some projects.

LTWC and the owners of the properties where the work will be conducted are partners on the projects. This Contract will be managed and paid for by the Council.

Scope of Work
The Contractor will provide all labor, supplies and equipment needed for successful completion of the work they have been hired to perform by the Council.

Work included in this contract will involve some or all of the following tasks (see section 4 of Attachment 1 of Exhibit A for detailed specifications):

1) **Project Planning.** Work to be performed will include:
   - GIS / GPS / mapping services
   - Tree marking
   - Timber volume estimation
   - Botanical surveys
   - Project management
   - Burn plan writing

2) **Habitat Restoration.** Work to be performed will include:
   - Manual and mechanized thinning / fuels reduction / Oak release
   - Manual and mechanized creation of burn piles, including biochar piles
   - Manual burning of piles
   - Manual and mechanized biochar burning
   - Prescribed burning
   - Directional tree felling
   - Tree removal / forwarding / skidding / trucking
   - Girdling
   - Snag creation / tree climbing
   - Various herbicide application methods
   - Manual aquatic invasive plant removal
   - Ripping / disking with bulldozer or similar as specified
   - Various mowing activities, including fuel breaks in preparation for prescribed burns
   - Various brush-cutting activities
   - Scalping of ground to be planted into
   - Seeding and seed collection
   - Application of straw for erosion control
   - Planting bareroot, plug, or containerized trees and shrubs, grasses and forbs
   - Live-stake cutting, harvesting, and installing
   - Application of mulch
   - Installation of tree tubes and/or stakes
   - Installation of wire cages with posts

- Removal of tree tubes and/or stakes

BAREROOT PLANTS AND LIVE-STAKE CUTTINGS MUST BE INSTALLED CORRECTLY: The Council Site Inspector will use the criteria outlined in **Attachment 1, Exhibit A** to determine if plant materials are correctly installed. The Council will periodically check the Contractor's work to ensure quality requirements are being achieved.

3) Maintenance. Work to be performed will include:
- Various herbicide application methods
- Various mowing techniques
- Various brush-cutting activities
- Watering

The specifications associated with these tasks are detailed in **Exhibit A** of **Attachment 1.**

THE COUNCIL WILL NOT ACCEPT, AND THE CONTRACTOR WILL NOT BE PAID FOR, WORK THAT DOES NOT MEET THE SPECIFICATIONS DETAILED IN ATTACHMENT 1.

1. Inspection & Quality Control

The Contractor is expected to abide by the specifications outlined above and the procedures outlined within their Council-approved proposal. The Contractor shall not make any changes to the procedures outlined within the proposal without approval from the Council. The Council site inspector and landowners may inspect work at any time during the course of the contract. The Council will conduct a final inspection within three days of the Contractor's request. This final inspection will be to ensure that all tasks have been conducted to the satisfaction of the Council.

2. Contractor's Supervisor

The Contractor shall provide an on-site working supervisor to be physically present whenever contract work is being performed. The Contractor's Supervisor shall check-in by phone or in person with the Project Manager, or his/her designee, each day work is performed. The Supervisor shall also attend any meetings with the Council that specifically pertain to the Supervisor's duties and all performance evaluation meetings.

3. Contractor Furnished Items

The Contractor shall furnish all equipment, repair parts, and supplies to perform contract work according to the required specifications. This includes all equipment required to meet State and local fire season working requirements. Council will reimburse Contractor for the use of select supplies and materials used during completion of work tasks, **see section 3 of Exhibit A of Attachment 1**. The Contractor may be required to furnish a portable restroom for use by their workers during work completed under this contract.

4. Contractor Vehicle-Identification & Parking

Contractor vehicles shall be parked in pre-arranged, designated parking areas and the total number of vehicles may be limited by parking area.

5. Special Conditions

Soil Disturbance: In order to minimize soil disturbance and compaction, gas powered vehicles are restricted to existing road ways, or to access routes approved by the Council prior to commencement of work.

Special Equipment Cleaning Requirements to Prevent Dispersal of Noxious Weeds: All equipment, including boots and shovels, moved to the job site, shall be cleaned of weeds and their seeds prior to each entrance onto the project. Cleaning shall consist of the removal of all dirt, grease, debris, and materials that may harbor noxious weeds and their seeds. This will likely require the use of a pressure hose. Equipment shall be made available for visual inspection by the Project Manager prior to entering the project area.

6. Fire Precautions

All State and local fire laws shall be followed. Specific requirements for fire equipment may vary by local fire district. Fire restrictions may result in limited hours of equipment operation at the work site, including the use of gasoline powered vehicles and power tools. Contractor is required to check with local fire districts and furnish any equipment required by those districts. Smoking or flaming materials are not allowed on project site or nearby areas with significant fuel loads during fire season. Contractor may be required to perform fire watch after completion of work during fire season. Contractor will be paid for their time performing fire watch according to the bid they provide in **Attachment 1 of Exhibit B**.

Western Lane Fire Protection District can be reached at (541) 935-2283 for information regarding the current Industrial Fire Precaution Level (IFPL) and the associated required precautions to which the Contractor must adhere.

7. Environmental Protection

Contractor shall adhere to all applicable Federal, State, and local environmental protection laws and regulations. Any maintenance work, equipment repairs, and refueling of equipment shall be at fueling areas located in parking lots or existing gravel roads. Equipment furnished shall be free from any leakage of petroleum products. Excessive leakage shall be a basis for issuing an immediate shutdown of the operation.

8. Insurance

Contractor shall maintain in force for the duration of the work proposed the insurance coverages specified below. Each policy required by these provisions shall be written as a primary policy. **A copy of each policy, including a certificate listing the Long Tom Watershed Council as Additionally Insured, shall be received by Council within 5 days of signing contract**. Each policy shall be with an admitted insurance carrier licensed to do business in the state of Oregon

and shall contain an endorsement entitling the Council to not less than 30 days prior written notice of any material change, non-renewal or cancellation. Failure to maintain any insurance coverage required shall be cause for immediate termination of the contract between the Council and the chosen Contractor. Council reserves the right to require additional insurance for a particular project or may approve a reduction in insurance limit requirements and also reserves the right to require that Contractor provides certificates of additionally insured to landowners where projects are being implemented.

Commercial General Liability. Contractor shall maintain a broad form commercial general liability insurance policy with coverage of not less than $500,000 combined single limit per occurrence, with aggregate of $1 million, for bodily injury, personal injury or property damage.

Automobile Liability. Contractor shall maintain an automobile liability insurance policy with coverage of not less than $500,000 combined single limit per occurrence, with aggregate of $1 million, for bodily injury, personal injury or property damage. The coverage shall include both hired and non-owned auto liability.

Workers' Compensation Insurance. Contractor shall comply with the Oregon Workers' Compensation law by qualifying as a carrier-insured employer or as a self-insured employer and shall strictly comply with all other applicable provisions of such law.

Herbicide Licensing Requirements. Herbicide application work will require Contractor to provide proof of compliance with all Oregon Department of Agriculture license requirements.

9. Payments

There will be no guarantee as to the amount of work or size of project, if any, that any Contractor will be given under this contract. There is also no guarantee that equity will exist in the amount of work assigned between individual Contractors. Assignments will be at the Council's sole discretion, independent of consideration of equity in volume of work.

Work to be implemented at some of the sites included in this scope of work will require the Contractor to comply with the requirements of the Davis-Bacon Act. Projects requiring Davis-Bacon Act compliance will be noted on work orders issued to selected Contractors. In case of increased costs to Contractors due to Davis-Bacon Act compliance, Exhibit B of Attachment 1 allows for the submittal of two unit bids for each task - one for projects where Davis-Bacon Act wages apply and another for projects where Davis-Bacon Act wages do not apply. Contractor may be required to provide copies of certified payroll to the Council if Davis-Bacon Act wages are required.

The Contractor may invoice the Council after the satisfactory completion of each work order. Payments will be made after satisfactory completion of the work order and within 30 days of invoice receipt from Contractor.

ATTACHMENT 1: HABITAT RESTORATION MASTER SERVICES CONTRACT

This agreement, dated _____, is between the Long Tom Watershed Council (Council) and _____ (Contractor).

GENERAL TERMS AND CONDITIONS

1. Eligibility List/Services Provided

   A. Contractor is eligible to provide the services identified in Section 2 of Exhibit A, attached hereto and incorporated herein.

   B. Contractor's services shall be performed with the same degree of care, skill, diligence, competency, and knowledge which is ordinarily exhibited and possessed by other professionals in good standing in the same or similar field and community as Contractor.

   C. In performing these services, Contractor shall be an independent contractor and not an employee of Council. Council shall have the right to verify that Contractor's performance meets the requirements of this agreement but shall not have the right to control the manner of Contractor's or subcontractors' performance.

   D. No provision of this agreement shall be construed to create a partnership, joint venture, employer-employee, landlord-tenant or principal-agent relationship.

2. Cost of Services

   A. Council shall pay Contractor at the unit prices contained in Exhibit B, attached hereto and incorporated herein.

   B. Council shall have thirty (30) days from the receipt of Contractor's invoice in which to make payment. In the event Council disputes Contractor's invoice, Council may withhold payment pending the outcome of the dispute without incurring interest and penalty charges. If Contractor's work involves herbicide application, Council shall have the right to review Contractor's submittal of herbicide application records and the right to withhold payment, without incurring interest or penalty charges, until Council has accepted Contractor's herbicide application records.

   C. Council and Contractor may agree to a basis of payment other than that provided in **Exhibit B**, hourly rates, lump sum, or other basis for payment.

   D. Council shall have the right to inspect Contractor's books and records to verify the accuracy of Contractor's billing statements. This right of inspection shall extend

to all documents necessary to permit adequate evaluation of the billing data submitted.

3. Interference with Performance

If at any time Contractor believes that Council is in any way hindering, delaying or interfering with Contractor's performance, Contractor shall promptly inform Council in writing and shall describe in detail the way in which Contractor believes that such hindrance, delay or interference is occurring. Contractor's failure to promptly inform Council in writing shall operate as a waiver of Contractor's right to assert claims or defenses based upon said hindrance, delay or interference. The terms of this paragraph shall not apply to Council suspension of the work pursuant to paragraph 7 herein.

4. Changes in Work

A. Subject to the requirements of paragraph 4(B) herein, Council shall have the right to request work outside the scope of any work order associated with this agreement and to cancel a portion of the work at any time. Council shall pay Contractor an amount to be agreed upon by the parties for all additional work. Council shall pay Contractor a reduced amount to be agreed upon by the parties in the event Council cancels work.

B. Contractor shall perform no work outside the scope of any work order associated with this agreement ("Original Work Order") until the parties have signed another work order ("Amended Work Order") that describes the work and contains the terms of payment. Contractor shall not be entitled to payment for work outside the scope of the Original Work Order unless the parties signed the Amended Work Order before Contractor performed the work. All work performed in the absence of the Amended Work Order shall be considered within the scope of the Original Work Order.

5. Time of Performance

Time is of the essence. Contractor shall complete all work in accordance with the time requirements specified in any work order associated with this agreement that describes the work.

6. Excusable Delays

Neither Council nor Contractor shall be responsible for or liable for damages resulting from delays due to causes beyond their reasonable control, including, but not limited to, acts of God, acts or omissions of governmental authorities, strikes, lockouts, acts of the public enemy, wars, blockades or civil disturbances. In the event of such a delay, the completion date for Contractor's services shall be extended for a period equal to the length of the delay. Contractor shall notify Council in writing not more than three (3) days after the occurrence of any event that Contractor believes will result in such a delay. The failure of Contractor to provide such notice shall result in a waiver of Contractor's right to claim that the delay is excusable.

7. Suspension of Work

Council may suspend the work at any time by delivering written notice to Contractor. In the event Council suspends the work for reasons which are not the fault of Contractor, Contractor shall be allowed an increase in the amount payable to Contractor that is equal to the increase in Contractor's expenses resulting from the suspension. Such expenses must be reasonable, customary and actually incurred. In no event will Council be liable for profits lost as a result of suspended work.

8. Rejected Work

All work shall conform to the specifications outlined in Exhibit A of Attachment 1. Council shall have the right to reject Contractor's defective work. Contractor shall promptly eliminate all defects free of charge. If Contractor fails to eliminate all defects within a reasonable time, Council may eliminate the defects, or hire another contractor to eliminate the defects and charge the expense of eliminating the defects to Contractor. If Council deems it inexpedient to correct a defect, Council may reduce the fee payable to Contractor by an amount that in Council's sole judgment reflects the diminished value of the work represented by the defect. Council's rights under this paragraph shall be in addition to and not in lieu of all rights Council may otherwise have in the event Contractor produces defective work.

9. Project Management

Each party shall assign a project manager to the work described in each work order. The project managers shall be authorized to act on behalf of their respective employers concerning all matters related to this agreement, except, however, that amendment, modification or alteration of this agreement shall not be effective unless approved pursuant to paragraph 19 of this document.

10. Assignment

Contractor shall not assign Contractor's rights or duties pursuant to this agreement or any work order associated with this agreement without first obtaining Council's written consent.

11. Conflicts of Interest

Contractor shall remain free of conflicts of interest at all times. Conflicts of interest shall include, but not be limited to, the following: where Contractor's services include recommending products or services for Council's purchase, a significant financial interest held by Contractor in any manufacturer or seller of products or services so recommended. Council shall have the exclusive right to determine what constitutes a significant financial interest.

12. Indemnity/Hold Harmless

Contractor shall indemnify and hold Council, and its officers, agents and employees, harmless from and against all claims, actions, liabilities, costs, including attorney fees and other costs of defense, arising out of or in any way related to the Work, Contractor's failure to strictly comply with any provision of this contract, or any other actions or failure to act by Contractor and Contractor's employees, agents, officers, representatives and subcontractors. In the event any such action or claim is brought against Council, Contractor shall, if Council so elects and upon tender by Council, defend the same at Contractor's sole cost and expense, promptly satisfy any judgment adverse to Council or to Council and Contractor, jointly, and reimburse Council for any loss, cost, damage or expense, including attorney fees, suffered or incurred by Council. Council shall indemnify and hold Contractor, its officials, agents, and employees, while acting within the scope of their duties as such, harmless from and against all third party claims, demands, and causes of action that are not caused by the acts or omissions of Contractor.

13. Insurance

A. Contractor shall maintain in force for the duration of this contract the insurance coverages specified below. Each policy required by these provisions shall be written as a primary policy. A certificate of Additionally Insured shall be received by Council within 5 days of contract signing. Each policy shall be with an admitted insurance carrier licensed to do business in the state of Oregon and shall contain an endorsement entitling Council to not less than 30 days prior written notice of any material change, non-renewal or cancellation. Failure to maintain any insurance coverage required by this contract shall be cause for immediate termination of this contract by Council.

i. Commercial General Liability. Contractor shall maintain a broad form commercial general liability insurance policy with coverage of not less than $500,000 combined single limit per occurrence, with aggregate of $1 million, for bodily injury, personal injury or property damage.

ii. Automobile Liability. Contractor shall maintain an automobile liability insurance policy with coverage of not less than $500,000 combined single limit per occurrence, with aggregate of $1 million, for bodily injury, personal injury or property damage. The coverage shall include both hired and non-owned auto liability.

iii. Workers' Compensation Insurance. Contractor shall comply with the Oregon Workers' Compensation law by qualifying as a carrier-insured employer or as a self-insured employer and shall strictly comply with all other applicable provisions of such law.

B. Council reserves the right to require additional insurance for a particular project or may approve a reduction in insurance limit requirements.

15. Termination

A. Council may terminate this agreement or any work order associated with this agreement without cause at any time upon the delivery of written notice. In the event of such termination, Council shall pay Contractor for all work performed in accordance with the requirements of this agreement or any work order associated with this agreement prior to the date of termination. Council shall not be liable for damages or expenses incurred by Contractor as a result of Council's termination.

B. The termination of this agreement or any work order associated with this agreement shall not relieve or release Contractor from any liability to Council for damages sustained by Council by virtue of any breach of this agreement or any work order associated with this agreement by Contractor or Contractor's negligence or other conduct, and Council may withhold all or any part of any payment due to Contractor upon such termination as a set-off against the amount of any such damages until such time as the exact amount of damages due Council from Contractor is determined.

C. In the event of the termination of this agreement or any work order associated with this agreement for any reason allowed herein or allowed by law, Contractor shall promptly deliver all work in progress to Council. Council shall not be obligated to pay Contractor's final invoice until Council has received the work in progress.

16. Compliance with State and Federal Laws/Rules

Contractor shall comply with all applicable federal, state and local laws, rules and regulations, including, but not limited to, the requirements concerning workers compensation insurance, health care payments, working hours, payments to employees and subcontractors and income tax withholding contained in ORS Chapters 279A, 279B and 279C.

17. Integration

This document constitutes the entire agreement between the parties on the subject matter hereof and supersedes all prior or contemporaneous written or oral understandings, representations or communications of every kind on the subject. No course of dealing between the parties and no usage of trade shall be relevant to supplement any term used in this agreement. Acceptance or acquiescence in a course of performance rendered under this agreement shall not be relevant to determine the meaning of this agreement and no waiver by a party of any right under this agreement shall prejudice the waiving party's exercise of the right in the future.

18. No Contingent Fees

Contractor warrants that Contractor has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this agreement, and that Contractor has not paid or agreed to pay any company or person,

other than a bona fide employee working solely for Contractor any fee or consideration of any kind, contingent upon or resulting from the award or making of this agreement. Contractor further warrants that Contractor shall not employ or retain any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure any work order associated with this agreement, and that Contractor will not pay or agree to pay any company or person, other than a bona fide employee working solely for Contractor consideration of any kind, contingent upon or resulting from the award or making of any work order associated with this agreement. In the event Contractor breaches the warranties contained in this paragraph, Council shall have the right to deduct from the agreement price or otherwise recover the full amount of such fee or consideration.

19. Work Orders/Amendments/Waivers

Work orders associated with this agreement shall be approved by Council project managers and the Contractor's authorized representatives. No waiver of any portion of this agreement and no amendment, modification or alteration of this agreement shall be effective unless in writing and signed by Contractor's authorized representative and by Council's Executive Director or the Executive Director's designee.

20. Third Party Beneficiaries

No provision of this agreement or any work order associated with this agreement shall in any way inure to the benefit of any third person so as to constitute any such person a third party beneficiary of this agreement or any work order associated with this agreement, or otherwise give rise to any cause of action in any person not a party to this agreement.

21. Attorney Fees

If any dispute arises concerning the interpretation or enforcement of this agreement or any work order associated with this agreement or any issues related to the U.S. Bankruptcy Code (whether or not such issues relate to the terms of this agreement), the prevailing party in any such dispute shall be entitled to recover all of its attorney fees, paralegal fees, costs, disbursements and other expenses from the nonprevailing party, including without limitation those arising before and at any trial, arbitration, bankruptcy, or other proceeding and in any appeal.

22. Interpretation of Agreement

A. This agreement and any work order associated with this agreement shall not be construed for or against any party by reason of the authorship or alleged authorship of any provision.

B. In case of a conflict between the provisions contained in any work order associated with this agreement and this agreement, the provisions contained in any work order associated with this agreement shall have precedence.

C. The paragraph headings contained in this agreement and any work order associated with this agreement are for ease of reference only and shall not be used in construing or interpreting this agreement or any work order associated with this agreement.

23. Severability/Survival

If any of the provisions contained in this agreement or any work order associated with this agreement are held illegal, invalid or unenforceable, the enforceability of the remaining provisions shall not be impaired. All provisions concerning the limitation of liability, indemnity and conflicts of interest shall survive the termination of this agreement and any work order associated with this agreement for any cause.

24. Choice of Law/Venue

This agreement and any work order associated with this agreement and all rights, obligations and disputes arising out of the agreement and any work order associated with this agreement shall be governed by Oregon law. All disputes and litigation arising out of this agreement and any work order associated with this agreement shall be decided by the state courts in Oregon. Venue for all disputes and litigation shall be in Eugene, Lane County, Oregon.

CONTRACTOR	COUNCIL
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

ATTACHMENT 1, EXHIBIT A: MASTER CONTRACT
SCOPE OF WORK AND SPECIAL TERMS AND CONDITIONS

RESTORATION SERVICES MASTER CONTRACT

1. **Project Award**

   A. If Contractor is asked to work on a project, Council will provide Contractor with a written work order and may require Contractor to attend a pre-contract meeting at the project site. Council will consider Contractor's unique skills, experience or equipment, familiarity with a site, capacity compared to the size or complexity of a project, and availability. Council may also consider Contractor's ranking in the initial selection process and the amount of work previously performed on other Council projects.
   B. Before Contractor begins work on a project, Contractor shall sign a work order associated with this Master Contract with a scope of work that includes a description of the work to be completed, unit prices, and work completion deadlines.
   C. At its sole discretion, Council reserves the right to award project work similar to that described herein to a contractor that has not executed a Master Contract with the Council.

2. **Unit Prices and Hourly Rates**

   A. Contractor shall complete work at the unit prices or hourly rates contained in **Exhibit B** unless otherwise agreed upon in any Work Order. For most projects, the scope of work will rely on unit prices, and will contain estimated quantities that will be multiplied by the unit prices, resulting in a total estimated price for each line item. The total unit prices will then be added together, resulting in a total contract price. Hourly rates are included for certain activities. Council may elect to pay Contractor for work on an hourly basis. Council will reimburse Contractor at cost plus 10% for any herbicide, surfactants, and indicator dye that Contractor uses while performing herbicide application services on Council projects. Contractor shall not be entitled to reimbursement for expenses incurred for any other supplies or materials without written agreement in a Work Order prior to commencement of work.
   B. Exhibit B also contains a site code for most of the line items. Site codes are described in table 2 below. The site codes vary according to site conditions, and are based on the premise that sites with poor conditions require more work than sites with better conditions. Some sites may have conditions that reflect two or more of the site codes. When this occurs, the code with the most applicable conditions will apply to the site. Council project manager and Contractor shall come to consensus regarding the site code for a project. Site codes are described in the table below.
   C. Council will calculate project acreage to the closest tenth of an acre using a horizontal plane and without regard to slope. The minimum project size for payment purposes will be one tenth of an acre.

D. Prices can be adjusted annually if desired by the Contractor. Prices increases greater than the annual inflation rate, as calculated by the U.S. Labor Department, will need to be justified by the Contractor in writing. Unjustified, substantial price increases during the term of this contract may result in less work being assigned to that Contractor.

Table 2. Project Site Code Descriptions

Site Code	Conditions Summary	Conditions Description (Note: all may not apply to a given site)
1a	≤ 5 acres, ideal	Small site, low invasive cover, good soil, flat
1b	≤ 5 acres, average	Small site, moderate invasive cover, fair soil, mixed terrain
1c	≤ 5 acres, poor	Small site, high invasive cover, poor soil, sloped
2a	>5 acres, ideal	Large site, low invasive cover, good soil, flat
2b	>5 acres, average	Large site, moderate invasive cover, fair soil, mixed terrain
2c	>5 acres, poor	Large site, high invasive cover, poor soil, sloped

3. **Items Provided by Council**

Unless Council project manager and Contractor agree to other arrangements on a case-by-case basis in writing on work orders, Contractor shall provide all materials necessary to complete the tasks described below. The exceptions to this are listed below:

- Bareroot plant materials. Council or its designee will pay for and dispense these materials from a refrigerated storage facility in Brooks, Oregon. Contractor is responsible for transporting plant materials from storage facility to Council project sites.
- Containerized plant materials. Council or its designee will pay for and deliver these materials to Council project sites. If Council desires Contractor assistance transporting these materials, Contractor shall be paid according to "Transport Extra Materials" task described below.
- Plug plant materials. Council or its designee will pay for and deliver these materials to Council project sites. If Council desires Contractor assistance transporting these materials, Contractor shall be paid according to "Transport Extra Materials" task described below.
- Native plant seed. Council or its designee will pay for and deliver these materials to Council project sites. If Council desires Contractor assistance transporting these materials, Contractor shall be paid according to "Transport Extra Materials" task described below.
- Mulch. Council will pay for and arrange delivery of mulch needed at project sites. If Council desires Contractor assistance transporting these materials, Contractor shall be paid according to "Transport Extra Materials" task described below.
- Straw. Council will pay for and arrange delivery of straw needed at project sites. If Council desires Contractor assistance transporting these materials, Contractor shall be paid according to "Transport Extra Materials" task described below.
- Plant protection materials (tubes, posts, fencing, etc.). Council or its designee will pay for and deliver these materials to Council project sites in most cases. If Contractor provides these materials, they shall be reimbursed for the actual cost of the materials plus 10%.

- Responsibility for purchase of materials needed for projects involving the Excavation / Large Woody Debris Placement / Equipment Operation task will be arranged for on a case-by-case basis with the Contractor during development of work order.

4. Work Task Descriptions and Specifications

A. Project Planning/Surveying

- **GIS/GPS and Mapping Services.** Contractor shall collect GIS/GPS information in the field and create electronic and/or hard copy maps as directed by the Council. Contractor shall supply maps in formats specified by the Council.

- **Tree Marking.** Contractor shall mark trees to be cut or retained as designated by the Council. Marking shall be done with **water-based** paint, and shall be dots or a circle around the bole of each tree to be removed or retained, at a height which will be visible to sawyers or operators of forestry equipment, generally a minimum of 4.5 feet from the ground. Cut trees shall also be marked at ground level with a dot, for facilitating post-thinning inspection

- **Timber Volume Estimation.** Contractor shall estimate volume of timber by species and grade using standard forestry practices in areas designated by the Council and submit reports to Council in format(s) agreed upon prior to commencement of work.

- **Botanical Surveys.** Contractor shall survey plant communities in areas designated by Council using methodology desired by Council, according to industry standard practices, and submit reports to Council in format(s) agreed upon prior to commencement of work.

- **Project Management.** Complex restoration projects may necessitate an on-site project manager. Contractor shall provide Project Management services as specified by the Council.

- **Burn Plan Writing.** Qualified Contractor shall draft and finalize with local authorities and partners a detailed plan to carry out prescribed fire on project site.

B. Site Preparation and Habitat Restoration Techniques

- **Manual Thinning / Fuels Reduction / Oak Release.** Cut trees shall be completely severed. Stump height shall not exceed 6" in height on the uphill side unless cutting is obstructed by natural obstacles. Stumps shall be horizontal as possible, and absent of all spikes. Cut stumps shall be piles as habitat into piles not larger than 4x4x6 foot wide, or as specified by Council site inspector. If operations cause damage to any posted monuments, fences or other improvements, Council project manager will be notified immediately. The Contractor will be responsible for restoration or replacement cost. Operations will be conducted to avoid damage to all leave trees and other resources, with minimal damage to all other retained species. If a tree designated for removal is interlocked with a leave tree and Contractor makes a reasonable assessment that they are unable to fall or remove without causing substantial damage then the Contractor may

retain the tree, double flag the tree with yellow and green flagging and, either GPS the location, or show the project manager the tree or trees in question.

- **Manual and/or Mechanized "Jackpot" Burn Pile Creation.** Concentrations of slash or limbs exceeding 1.5 tons shall be piled for burning. For the purpose of this project 0.5 tons equates to enough material to create approximately three 5x6x7 foot wide hand piles. In general across any acre concentrations will not exceed 1.5 tons. Piles shall be constructed compactly by aligning individual pieces in the same direction and placing the heavier slash on top. Piles shall have a stable base to prevent toppling. The long axis for individual pieces shall be oriented up and down slope. Slash that causes large air spaces in piles shall be cut to eliminate air spaces. Protruding pieces shall be trimmed to allow covering in a manner that permits the piles to shed water. Material extending over one foot beyond the pile shall be bucked off to less than one foot and placed in the pile. All piles shall be as compact as possible and free of non-combustible material. Height shall be no less than five (5) feet and no greater than six (6) feet. Width shall not exceed seven (7) feet in either direction. Piles must be constructed when cut material is still green, and shall have sufficient fine material (no piles containing only stump cuts/large limbs or boles).

    - **Pile Location.** Unless specifically approved by the Council's Project Manager, piles shall be located so that later burning will not damage standing green trees, reproduction and seedlings. Generally piles will be placed 15-20 feet away from retain tree crowns. Clusters of piles are preferred if possible to facilitate burning. Contractor is responsible for mapping piles in GPS and providing the Council with the GPS files and coordinates of the piles.

    - **Pile Covering.** Contractor supplied plastic (4 mil thick, 10 feet wide), shall be placed on all burn piles (including machine piles) so that the pile will be a minimum of 80 percent covered. Plastic shall be secured on piles by placing 10 percent of total material piled on top of plastic. It shall be placed so as to provide the best protection from rain and snow, and the best cover for winter ignition. All unused/cut plastic shall be carried out of the unit if no longer needed to cover piles.

- **Manual "Jackpot" Pile Burning.** Contractor shall obtain the necessary burn permit from the Oregon Department of Forestry. In order to achieve an efficient and safe burn, contractor shall allow for sufficient wet conditions before ignition and thus decrease the degree of burn creep and/or escape. Contractor shall provide sufficient human-power to ignite and manage the burning of piles. Piles shall be managed to burn clean and level to the ground. Maintaining the burning material at least one time will be necessary after the piles have had time to burn down and more may be required for satisfactory consumption. Contractor shall provide adequate patrol on site until burn piles are consumed and pose no threat for additional creep. Contractor shall furnish firefighting tools on project site at all times during burn.

- **Manual and/or mechanized Biochar or "Rick" Burn Pile Creation** The "rick" pile is a method of piling slash or limbs that burns efficiently and reduces smoke emissions, and

can be quenched before burning to ash in order to produce biochar. It is an alternative to "jackpot" pile creation for forestry and brush thinning operations.

Concentrations of slash or limbs exceeding 1.5 tons shall be piled for burning. Small brush and branches shall be separated from larger wood, and piles shall be built with similarly sized wood . Piles are constructed by laying out several pieces of wood parallel to one another with space between each piece that is approximately equivalent to the diameter of the material. Additional layers are added on top, alternating layers 90 degrees each time so as to create a "log cabin" shaped pile with good air flow throughout. Piles shall be roughly 4-6 feet in diameter and 4-6 feet tall, with material being cut to fit this length. No dirt shall be mixed in with the pile. Other specifications may be determined as the tool box for biochar creation grows.

- **Pile Location.** Unless specifically approved by the Council's Project Manager, piles shall be located so that later burning will not damage standing green trees, reproduction and seedlings. Generally piles will be placed 15-20 feet away from retain tree crowns. Clusters of piles are preferred if possible to facilitate burning. Contractor is responsible for mapping piles in GPS and providing the Council with the GPS files and coordinates of the piles.

- **Pile Covering.** Contractor supplied plastic (4 mil thick, 10 feet wide) or wax paper, shall be placed on all burn piles (including machine piles) so that the pile will be a minimum of 80 percent covered. Plastic shall be secured on piles in a manner that enables removal and reuse before burning in a majority of cases. Wax paper shall be placed within the pile during pile construction so as to withstand extended exposure to precipitation. . It shall be placed so as to provide the best protection from rain and snow, and the best cover for winter ignition. All unused/cut plastic shall be carried out of the unit if no longer needed to cover piles.

- **Manual "Rick" Pile Biochar Burning**. Contractor shall obtain the necessary burn permit from the Oregon Department of Forestry. In order to achieve an efficient and safe burn, contractor shall allow material in the pile to dry for at least 30 days for up to 2" diameter wood, or at least 60 days for over 2" diameter wood. Contractor shall allow for sufficient wet conditions before ignition and thus decrease the degree of burn creep and/or escape. Contractor shall provide sufficient human-power to ignite and manage the burning of piles. Contractor shall provide adequate patrol on site until burn piles are consumed and pose no threat for additional creep. Contractor shall furnish firefighting tools on project site at all times during burn.

  Ignition – Contractor will place one foot of very dry, very small kindling on top of the pile and ignite pile at the top. As the flames die down, Contractor will push unburned material into the center of the pile.

  Biochar creation - When pile has collapsed into a bed of glowing coals, Contractor will quench the pile completely with water or by dispersing glowing coals in surrounding habitat. Coals will be spread out thin to cool and extinguish fully under supervision and

more water may be added as needed until coals are cold and completely out. Contractor is responsible for furnishing a water tank with sufficient capacity to quench all project piles.

- **Mechanized Biochar Burning.** Contractor will work with Council to implement mechanized biochar burning as part of habitat restoration activities. The details of burns will be discussed prior to implementation and described in detail in associated work orders.

- **Prescribed Burning.** Contractor will work with Council to implement prescribed burns as part of habitat restoration activities. The details of burns will be discussed prior to implementation and described in detail in associated burn plans and work orders. All ODF fire regulations shall be followed. Contractor is responsible for implementing prescribed burns safely in accordance with burn plans and ensuring that fires stay within project area. Contractor is liable for any damages associated with fires that move outside of project area.

- **Fire Watch.** Contractor shall remain on-site after completing work for the day and perform fire watch following all Oregon Department of Forestry specifications. Contractor staff performing fire watch must be physically capable of responding to potential fire starts. Requirements for on-site equipment and personnel will be discussed with the Council and ODF prior to issuance of work order.

- **Chipping of Woody Debris.** Contractor shall chip limbs and foliage from felled trees and/or cut brush. Chips shall be disposed of at a location at the project site specified by the Council. If chips need to be hauled off-site, Council and Contractor will negotiate compensation to Contractor prior to issuance of Work Order.

- **Snag Creation/Tree Climbing.**
  "Green" Snags - Topping must occur above at least the lowest two live branch whorls and should occur below at least the seventh lowest live branch whorl. A whorl is defined as consisting of at least two live, green branches that are in a circular arrangement around the stem of the tree. Branches may be cut as the climber ascends making this more straightforward. Branches may be flush-cut. Once tree is topped, Contractor shall make several saw cuts across the cut top of the tree, two cuts per inch of diameter. Cuts should be 2-3 inches deep. This is to simulate a broken top. Branches with minimum 6" diameter at branch collar shall be severed at a minimum of 3 feet from the branch collar by making 45 degree angled slice cuts so as to have the branch break most of the way through, simulating natural breakage. The number of branch segments to be retained on the snag shall be approximately 1 for each 10 feet of total tree height after topping. The density of retained branches shall be higher towards the top of the snag. (This is to encourage raptor perches).

  Roosting slits ("bat flaps") and *cavity starts* may be added as specified by the Council site inspector to created snags at the time of topping or girdling. *Roosting slits* may be used by most bats and some birds, such as brown creepers. The slits should be at least 8" deep and 2" wide, and angled sharply upward into the cambium layer. The higher up the snag they are, the more likely these roosting slits will be used. Some sun exposure warms these roosts and makes them more attractive in winter. *Cavity starts* allow decay causing

fungus to enter the tree wound. These cavities may be used by flying squirrels, swallows, kestrels and smaller owls. They should be at least 6" deep and 4" high. Target snag height should be no less than 40 feet, but the taller the snag, the more widely utilized it will be by wildlife. Trees with co-dominant stems or irregular or partially naturally topped should be chosen before more merchantable trees with uniform growth. Situate snags away from roads, landings, structures and other areas of high-use. Snags pose a potential risk to people and structures when they eventually break and fall.

- **Tree Girdling.** Cuts need to completely encircle the tree and penetrate through the bark and cambium tissue throughout the entire cut. Girdled trees shall have the cuts at approximately 36 inches and 42 inches from the ground. Trees the Contractor or the Council deems would cause damage to retain trees during felling shall be girdled or marked for snagging or topping.

- **Excavation / Large Woody Debris Placement / Equipment Operation.** Contractor shall operate equipment as specified by Council inspector. Potential projects include fish passage barrier culvert removals, stream-simulation culvert installations, bridge installations, rocked stream ford installations, log jam installations, and levee/berm removal. Equipment or personnel used for these projects could include excavators, dozers, dump trucks, rollers, front end loaders, skidders, laborers, etc.

- **Mechanized Thinning / Fuels Reduction / Oak Release.** Mechanical methods are limited to the use of low-impact harvesting equipment. Stump height shall not exceed 6” in height on the uphill side unless cutting is obstructed by natural obstacles. If this height cannot be accomplished mechanically, Contractor shall follow mechanical cutting with hand treatment to achieve desired stump height. Cut stumps shall be piles as habitat into piles not larger than 4x4x6 foot wide, or as specified by Council site inspector. To minimize soil disturbance, tree stumps shall not be grubbed or otherwise removed. Felled trees shall be transported to the staging area; the Contractor shall use caution to minimize soil disturbance and damage to vegetation during this process. Mechanical removal of vegetation within the dripline of oak trees shall only be allowed using minimally disruptive equipment, preferably by equipment with an extendable arm that can work without touching the ground; wheels or tracks of the equipment should not be located within the dripline. Cut trees must be raised off the ground when transported; tree skidding along the ground should be avoided. The only exception to this would be to move cut trees on steep slopes from the felling location to a skid trail; in that case the Council will determine whether the proposed equipment may be approved. No mechanical equipment shall travel within the dripline of large-diameter oak trees with open-grown canopies.

- **Log Trucking - Long Load / Mule Train / Self-Loader.** Contractor shall operate designated log truck to haul woody material from Council project sites to mills or other locations as directed by Council project manager.

- **Flail or Rotary Mow (& Mastication).** As directed by Council site inspector, Contractor shall rotary or flail mow target vegetation using a tractor, skid-steer or excavator-mounted mower or masticator. The skid-steer shall make as few passes as possible to minimize soil disturbance. Slash generated through mastication shall be left in place, with

the exception of pieces sufficiently large to present an obstacle to future mowing. **Contractor is responsible for recognizing and preventing damage to existing native vegetation.**

- **Rip Ground.** As directed by Council site inspector, Contractor shall rip compacted planting ground with dozer-mounted ripping shanks. Ground shall be ripped at least 18" deep and rips shall be no more than 30" apart in project area. Contractor shall not rip any ground in the Critical Root Zone of trees, unless otherwise specified by Council site inspector.

- **Hand Mow/Cut.** As directed by Council site inspector, Contractor shall remove target vegetation using hand held sawing, shearing, weed whipping or other cutting equipment. Target vegetation may include all vegetation that is not planted by Council. **Contractor is responsible for recognizing and preventing damage to existing native vegetation.**

- **Push Mow.** As directed by Council site inspector, Contractor shall remove target vegetation in planted project sites using walk-behind equipment. Target vegetation may include all vegetation that is not planted by Council. **Contractor is responsible for recognizing and preventing damage to existing native vegetation.**

- **Manual Cut Blackberry/Brush.** Contractor shall cut Himalayan blackberry (*Rubus armenicus*), evergreen blackberry (*R. laciniatus*) and other target brush to ground and shall cut stems to less than 24 inches in length using manual or mechanical means. **Contractor is responsible for recognizing and preventing damage to existing native vegetation.**

- **Scalp (16").** Contractor shall prepare individual planting spots by scraping away all live and dead vegetation, roots and rhizomes from a 16 inch diameter circle. Where the slope of the ground is greater than 20 percent, Contractor shall also construct a flat planting area.

- **Large-Diameter Scalp (48").** Contractor shall prepare individual planting spots by scraping away all live and dead vegetation, roots and rhizomes from a 48 inch diameter circle. Where the slope of the ground is greater than 20 percent, Contractor shall also construct a flat planting area.

- **Hand Seed.** Contractor shall apply native seed to project sites by hand or using hand crank spreaders at a rate determined by Council site inspector (typically between five (5) and 15 pounds per acre).

- **Machine Seed.** Contractor shall apply native seed to project sites using Council-approved machine seed spreaders or drills at a rate determined by Council site inspector (typically between five (5) and 15 pounds per acre).

- **Apply Dry Straw Mulch.** Contractor shall spread weed free native or sterile straw at project sites for erosion control. Straw shall cover area(s) indicated by Council site inspector evenly to a depth of at least one (1) inch or between two (2) and three (3) tons per acre.

C. Planting Activities

- **Install Small Bare Root Plants.** Contractor shall plant either one or two-year old bare root plants provided by Council in row or random arrangements or as directed by Council site inspector. Plants will typically be installed at intervals of 2-10 feet on center. Plantings will typically be installed in rows ranging from 4-10 feet apart. This planting plan is designed to allow mowing between the rows. Within the planted rows, trees will typically be spaced ten feet apart with shrubs planted between them, unless otherwise specified by the Council site inspector. The Council *may* mark the rows so that the Contractor can easily see where to plant. The Council may use colored paint to mark the rows. Several colors *may* be used and will correspond to specific species compositions to be planted. For instance, near the creek we may wish to plant different species than those that will be installed further from the creek. We *may* use different colors for these respective lines so that the Contractor will know which species mix to plant in each area. The Council will provide the desired species list for each color code to the Contractor upon time of planting.

- **Install Large Bare Root Plants.** Contractor shall plant three-year old bare root plants provided by Council in row or random arrangements or as directed by Council site inspector.

- **Install Containerized Plants.** Contractor shall plant either one gallon or similarly sized containerized plants provided by Council in row or random arrangements or as directed by Council site inspector. Contractor shall transport, protect, handle and install plants as follows:
  Contractor shall transport, protect, handle and install plants as follows:

Protection of Plant Materials during Transport

Contractor shall be responsible for transporting plant material from Council's cooler in Brooks, Oregon to the project site either in fully-enclosed trailers or trucks with canopies. Open-bed trucks may be used only if Contractor covers plant materials with insulating blankets to protect plant materials from freezing. Plant material shall not be transported in heated crew vehicles.

Protection of Plant Materials on Project Site

Contractor shall keep plants covered at all times using either light colored or white tarps or insulating blankets and shall protect all plant material from loss, destruction or damage of any kind, including physical injury, freezing, heating or drying. Contractor shall be responsible for all loss, destruction or damage to plant material that occurs from the time Contractor takes possession of the plant material until the plant material is planted.

Handling of Plant Materials during Planting

Contractor shall dip the entire root system of each bare root plant in water upon removing the plant from the nursery bag, and shall then place each plant directly into a planting bag. Plant material shall be carried into planting areas only in Council approved planting bags. The quantity of seedlings placed in a planting bag shall be limited to that which allows the removal of individual seedlings without damage to tops or roots. Contractor

shall remove only one seedling at a time from a planting bag only after the planting hole has been prepared. Contractor shall prune any stem-girdling or severely kinked roots present at the time of planting.

Plant Placement

Contractor shall install plant material at various planting densities as directed by Council site inspector or as indicated in any work order. Council may also specify where certain plant species or associations of plant species are to be planted within each project area. Plant material planted in inappropriate places will be subject to rejection by Council during inspections. Inappropriate places are places where logs, compacted slash greater than 18 inches in depth, rock outcrops, cobble, gravel, standing water or other media prevent planting tools from making an acceptable planting hole. When an inappropriate place is encountered, Contractor shall plant the plant material in the nearest appropriate location.

Planting Technique

Contractor shall prepare a planting hole twice as wide as the spread of the roots to a depth in the center that maintains the root collar at the elevation of the surrounding finished grade and slightly deeper along the edges of the hole. Contractor shall spread all roots out radial to the main stem in the prepared hole with roots in a near-natural arrangement, at a depth at which the top of the root system is covered by approximately one (1) inch of top soil after filling, packing and leveling. A "near-natural arrangement" means that roots approximate the position they would have when growing in nature, and are not twisted, tangled, compacted, curled, or bent relative to a position that is perpendicular to the ground surface. Prune any stem-girdling or severely kinked roots. All root tips shall be directed away from the trunk. Prune any broken roots, removing the least amount of tissue possible. Each plant shall be set firmly in the ground, with moist soil filled in and placed firmly around the roots. Clay soil clumps shall be broken up to ensure that planting holes do not open up as soil dries during the summer. Contractor shall lightly tamp the soil around the roots to eliminate voids and reduce soil settlement. There shall be no air pockets adjacent to or near the roots. Contractor shall level the soil near the plant after planting and firming so that there are no depressions or mounds near the stem.

Timing of Planting

Contractor will install all bareroot plants between January 1 and March 15 unless otherwise specified by the Council. The Contractor pledges that tree planting will not be interrupted until all trees are planted. If Contractor wishes to interrupt work, then that interruption must be approved by the Council project manager (PM).

Council's Right to Suspend Planting

Council may suspend planting work if Council determines that weather conditions could damage plant material even if the material is handled in accordance with this Master Contract. Council may also suspend planting work at any time if Council determines that Contractor is not handling plants or planting in accordance with this Master Contract.

- **Install Plugs.** Contractor shall plant herbaceous plugs using picks or dibble sticks. Contractor shall transport plug trays in covered trucks or trailers. Council site inspector

shall determine planting density, which will generally vary between one (1) foot on-center to three (3) feet on-center.

- **Harvest 18-Inch Pole Cuttings.** Contractor shall harvest 18-inch long pole cuttings from sites indicated by Council site inspector. Upon harvest, Contractor shall place cuttings in bundles of 100 in buckets with water. Cuttings shall be kept covered with light colored tarps or in water at all times until they are planted.

- **Install 18-Inch Pole Cuttings**. Contractor shall plant 18-inch long pole cuttings at density indicated by Council site inspector in areas designated by Council site inspector or indicated in the work order associated with this Master Contract that addresses the project. Contractor shall insert pole cuttings into the ground to a minimum depth of nine (9) inches. Council site inspector may direct Contractor to install the cuttings vertically, perpendicular to the ground surface, or at another angle. Pole cuttings shall be planted bottom end first. Contractor shall remove and replace any cuttings that are broken or skinned during planting.

- **Harvest Four-Foot Pole Cuttings.** Contractor shall harvest four (4) foot long pole cuttings from sites indicated by Council site inspector. Upon harvest, Contractor shall place cuttings in bundles of 40-60 in buckets with water. Cuttings shall be kept covered with light colored tarps or in water at all times until they are planted.

- **Install Four-Foot Pole Cuttings.** Contractor shall plant four (4) foot long pole cuttings at density indicated by Council site inspector in areas designated by Council site inspector and indicated in the work order associated with this Master Contract that addresses the project. Contractor shall insert pole cuttings into the ground to a minimum depth of 24 inches. Council site inspector may direct Contractor to install the cuttings vertically, perpendicular to the ground surface, or at another angle. Pole cuttings shall be planted bottom end first. Contractor shall remove and replace any cuttings that are broken or skinned during planting.

- **Harvest Six-Foot Pole Cuttings.** Contractor shall harvest six (6) foot long pole cuttings from sites indicated by Council site inspector. Upon harvest and depending on diameter of the pole cuttings, Contractor shall place cuttings in bundles in buckets with water. Cuttings shall be kept covered with *light colored tarps* or in water at all times until they are planted.

- **Install Six-Foot Pole Cuttings**. Contractor shall plant six (6) foot long pole cuttings at density indicated by Council site inspector and indicated in the work order associated with this Master Contract that addresses the project. Contractor shall insert pole cuttings into the ground to a minimum depth of 36 inches. Council site inspector may direct Contractor to install the cuttings vertically, perpendicular to the ground surface, or at another angle. Pole cuttings shall be planted bottom end first. Contractor shall remove and replace any cuttings that are broken or skinned during planting.

- **Harvest Eight-Foot Pole Cuttings.** Contractor shall harvest eight (8) foot long pole cuttings from sites indicated by Council site inspector. Upon harvest, Contractor shall

place cuttings in water. Cuttings shall be kept covered with *light colored tarps* or in water at all times until they are planted.

- **Install Eight-Foot Pole Cuttings**. Contractor shall plant eight (8) foot long pole cuttings in areas designated by Council site inspector and indicated in the work order associated with this Master Contract that addresses the project. Contractor shall insert pole cuttings into the ground to a minimum depth of 72 inches. Council site inspector may direct Contractor to install the cuttings vertically, perpendicular to the ground surface, or at another angle. Pole cuttings shall be planted bottom end first. Contractor shall remove and replace any cuttings that are broken or skinned during planting.

- **Install Bamboo or Hardwood Stakes.** Contractor shall install a 36-inch stake adjacent to planted trees and shrubs. Stakes shall be driven vertically into the ground at a location four (4) inches from the base of the plant, and to a minimum depth of nine (9) inches. Bamboo stakes shall be installed with the larger diameter end in the ground. At the end of each day, Contractor shall re-bundle and load materials into Contractor's vehicle, unless directed to do otherwise by the Council site inspector.

- **Apply Mulch with Vehicle Access.** Contractor shall apply mulch in the form of wood chips or shavings around each planted plant. Mulch shall be spread in a 30-inch diameter circle to a depth of four (4) to six (6) inches so that no mulch is in contact with the plant stem. Council site inspector may change the quantity and kind of mulch material when warranted by site conditions.

- **Apply Mulch without Vehicle Access.** Contractor shall apply mulch in the form of wood chips or shavings around each planted plant. Mulch shall be spread in a 30-inch diameter circle to a depth of four (4) to six (6) inches so that no mulch is in contact with the plant stem. Council site inspector may change the quantity and kind of mulch material when warranted by site conditions.

- **Install Vexar or Equivalent Mesh Tree Protection Tube and Bamboo or Hardwood Stakes.** Contractor shall position the bottom end of the tube so that it is in full contact with the ground. Contractor shall anchor each plant tube to the ground using either two (2) or three (3) bamboo or dimensional hardwood stakes. Contractor shall weave a vertical stake either 36 or 48 inches in length through the tube webbing a minimum of four times and insert it into the ground to a minimum depth of nine (9) inches. Bamboo stakes shall be installed with the larger diameter end in the ground. Contractor shall further secure the tube using a 24-inch long stake placed diagonally to a depth of six (6) inches and woven twice between the tube and vertical stake. The tube shall be centered on the plant, and shall be installed so that it remains in full contact with the ground when subjected to a moderate upward tug.

  Contractor shall not damage the plant during tube installation and, if necessary, shall reach into the tube to ensure that branches are in a natural position and that the dominant central leader is pointed upward. Plants with skinned bark, a broken dominant central leader, a curled leader inside the tube, or a leader protruding through the side of the tube will be subject to rejection by Council site inspector. Contractor shall discard and replace stakes broken during installation. Where rocky ground prevents driving the stakes to the

full depth on the first attempt, the stake shall be moved to a location where the tube can be driven to the required depth. If soil conditions prevent proper stake installation on many plants throughout a planting site, Contractor shall notify Council site inspector.

At the end of each day, Contractor shall bundle and load materials into Contractor's vehicle, unless directed to do otherwise by Council site inspector.

- **Install Blue Poly or Equivalent Solid Tube and Bamboo or Hardwood Stakes.** If solid-walled tubes are to be installed, Contractor shall attach with a minimum of two (2) eight (8) inch zip ties. Contractor shall bury solid-walled tubes two (2) inches into topsoil with the main stem of the plant centered in the tube. The maximum allowed lean of the tube is two (2) inches from plumb, measured from the top of the tube.

  Contractor shall not damage the plant during tube installation and, if necessary, shall reach into the tube to ensure that branches are in a natural position and that the dominant central leader is pointed upward. Plants with skinned bark, a broken dominant central leader, a curled leader inside the tube, or a leader protruding through the side of the tube will be subject to rejection by Council site inspector. Contractor shall discard and replace stakes broken during installation. Where rocky ground prevents driving the stakes to the full depth on the first attempt, the stake shall be moved to a location where the tube can be driven to the required depth. If soil conditions prevent proper stake installation on many plants throughout a planting site, Contractor shall notify Council site inspector.

  At the end of each day, Contractor shall bundle and load materials into Contractor's vehicle, unless directed to do otherwise by Council site inspector.

- **Install Wire Cage with Post(s).** Contractor shall cut and install 48-inch tall welded or woven wire mesh cages secured to and supported by two 60-inch long metal or wood stakes. Contractor shall install stake(s) to a depth of 12 inches and shall secure wire mesh using a minimum of two (2) metal clips per stake. Council site inspector shall designate which plants will receive the cages. At the end of each day, Contractor shall bundle and load materials into Contractor's vehicle, unless directed to do otherwise by Council site inspector.

- **Transport Extra Material.** Beyond standard materials transport, Contractor shall travel, at Council site inspector's request, between locations designated by the Council and project site(s) for the purpose of transporting plants, plant protection materials, or other materials. Council shall compensate Contractor at the hourly rate shown in this Master Contract unless otherwise agreed upon in any Work Order.

D. <u>Maintenance Activities</u>

- **Hand or Mow/Cut.** As directed by Council site inspector, Contractor shall cut target vegetation in planted project sites using hand held equipment (e.g., saws, shears, trimmers, etc.). Target vegetation may include all vegetation that is not planted by Council or may be limited to species included on Council's Target Species List.

Contractor is responsible for recognizing and preventing damage to existing native vegetation.

- **Push Mow.** As directed by Council site inspector, Contractor shall cut target vegetation in planted project sites using walk-behind equipment. Target vegetation may include all vegetation that is not planted by Council or may be limited to species included on the Council's Target Species List. Contractor is responsible for recognizing and preventing damage to existing native vegetation.

- **Backpack Spot or Area Herbicide Application.** Contractor shall apply a Council approved herbicide in a volume sufficient to adequately cover all target vegetation at the site. Target vegetation may include all vegetation that is not planted by Council or may be limited to species included on the Council's Target Species List. Contractor may be required to use "shields" that protect native plant materials that are non-target. An example of a "shield" is a five-gallon plastic bucket cut in half along the vertical axis. Each segment of bucket shall be fixed to a wooden stake, lathe or other means as approved by the Council site inspector. Any other type of "shield" must be approved by the Council site inspector. Contractor is responsible for properly calibrating all backpack spray equipment and is subject to a calibration test administered by the Council site inspector. Contractor is responsible for recognizing and preventing damage to existing native vegetation.

- **Boom Herbicide Application.** Contractor shall apply a Council approved herbicide in a volume sufficient to adequately cover all target vegetation at the site. Target vegetation may include all vegetation that is not planted by Council or may be limited to species included on the Council's Target Species List, attached hereto as Exhibit D and incorporated herein. Contractor is responsible for properly calibrating all boom spray equipment and is subject to a calibration test administered by the Council site inspector. Contractor is responsible for recognizing and preventing damage to existing native vegetation.

- **Hack and Squirt Herbicide Application.** Contractor shall treat target woody plants by making cuts totaling not less than 60 percent of the plant's circumference through the bark and cambium layers and injecting or spraying (at low pressure) a Council approved herbicide into cuts.

- **Basal Bark Herbicide Application.** Contractor shall treat target woody plants under six (6) inches in diameter by spraying a low-volume mixture on an area from the root collar to up to between 12 and 18 inches up the stem of the target plant, or as directed by the Council site inspector.

- **Hourly Manual Aquatic Herbicide Application.** All herbicide treatment of aquatic invasive species shall be conducted under the appropriate provisions of the Oregon Department of Agriculture (ODA) aquatic pesticide applicators license requirements. Contractor shall follow ODA pesticide applicator regulations. Contractor shall ensure that all crew members are properly licensed per the ODA Pesticide Applicator, Trainee or Apprentice license requirements. The contractor shall submit to the Council documentation that the contractor, and/or his/her designated field supervisor, is licensed

in the State of Oregon, under the appropriate category, to handle and apply herbicide at the work site and/or to supervise a trainee.

Shoreline applications of species including, but not limited to, *L. hexapetala* and *I. pseudoacorus* shall be done with backpack sprayers with low drift nozzles. (Hack and squirt method may be utilized for *I. pseudoacorus* as directed by Council site inspector).

Herbicide treatment of aquatic *L. hexapetala* will be more challenging and will most likely be accomplished using a flat bottomed boat rigged with spray equipment that can be navigated through the dense vegetation to reach the full extent of the infestation. The applicants' Proposal should include a detailed description of proposed methods for herbicide control of aquatic *L. hexapetala*.

- **Manual Aquatic Invasive Species Removal**
  Manual Removal of Uruguayan primrose-willow (Ludwigia hexapetala). Uruguayan primrose-willow *(Ludwigia hexapetala)* is a perennial, emergent weed with showy yellow flowers and alternating, willow-like leaves. It is native to South America and was likely brought to the United States as an ornamental pond or aquarium specimen. Once established, *Ludwigia hexapetala* (herein referred to as *L. hexapetala*) can grow very rapidly and form dense mats of vegetation both along shorelines and in shallow waterways. It has a remarkable ability to grow in a wide range of environmental conditions, including on dry land as water recedes or dries up during the summer. Perhaps of greatest concern is the ability of *L. hexapetala* to regrow from stem fragments, which allows it to recolonize new areas readily when the plant is broken apart either by currents, herbivory, manual control efforts, or other disturbance.

  Manual control methods shall consist of careful pulling of plants to remove as much root material as feasible while minimizing stem breakage. For shoreline areas, the best method is to use long handled tools to reach the plants and then to carefully pull the plants out by hand. In deeper waters, boats may be used to reach plants and as a way to haul plants back to shore.

  Manual methods should not be used on plants growing on dry, rocky banks since it is impossible to pull these without breaking the stems off at ground level, leaving a network of roots behind. If feasible, plants growing in mudflats should be pulled if they are sparse and roots come out easily.

  All plant removed using manual control methods shall be disposed of onsite. In areas where removed quantities are not great, plant material shall be spread out 4-5 feet above the summer water levels to dry out. Care should be taken to avoid smothering or otherwise harming native plants. For those areas where considerable amounts of *L. hexapetala* are being removed, the plant material may be piled up to minimize the area impacted by the decaying vegetation. These piles should be monitored monthly throughout the growing season for re-sprouts and should be treated manually or with spot applications of herbicides, as needed.

  Manual Removal of Yellow-flag Iris (Iris pseudoacorus). Yellow-flag Iris *(Iris pseudoacorus)* (herein referred to as *I. pseudoacorus*) is a perennial forb that can grow in

large clumps and has been known to reduce the carrying capacity of wetlands for water storage, and block irrigation canal flow and flood control ditches. In Oregon, Yellow-flag Iris blooms in late spring or early summer. Several flowers can occur on each stem, along with one or two leafy bracts. Each flower resembles a common garden iris with three large (1.5- to 3-inch) downward facing yellow sepals and three smaller upward pointing petals. The yellow sepals are often streaked with brown to purple lines. Flower color ranges from cream to bright yellow. The plants may grow to almost five feet in height. The leaves are mostly basal and are folded and clasp the stem at the base in a fan-like fashion. It spreads primarily from rhizomes dispersed during high-water events. *I. pseudoacorus* has a resin that, released upon cutting, can irritate eyes and/or skin.

Manual control methods for *I. pseudoacorus* shall consist of careful pulling or digging of plants to remove as much rhizome material as feasible. Care must be taken to physically remove all plant material from wet or submerged environments. Council site inspector shall determine if sufficient removal is taking place during initial manual removal activities.

- **Watering - Water on Site.** Contractor shall acquire and deliver clean water at Contractor's expense to plants in project planting areas using a pump. Contractor may draw water from an on-site pond or stream. Contractor shall ensure that each live plant planted in the area identified for watering receives five (5) gallons of water at the specified time.

- **Watering - Water off Site.** Contractor shall acquire and deliver clean water at Contractor's expense to plants in project planting areas using a tanker truck and hoses. Contractor shall ensure that each live plant planted in the area identified for watering receives five (5) gallons of water at the specified time.

- **Install Watering Bags.** Contractor shall install plastic tree watering bags holding a minimum of 15 gallons of water and with a slow drip hole(s) water release system, specifically designed to water establishing trees. Water should release over a several day period, not within a few hours.

  Watering bags shall be either (a) *Treegator Irrigation Bags* sized to the appropriate model for the requirements of the plant, manufactured by Spectrum Products, Inc., Youngsville, NC 27596. (b) *Ooze Tube* sized to the appropriate model for the requirements of the plant, manufactured by Engineered Water Solutions, Atlanta, GA, or (c) approved equal upon submittal of manufacturer's product specifications.

- **Remove Tree Tubes and/or Stakes.** Contractor shall remove, paying close attention not to break or damage in any way the plant material therein. All materials associated with the initial tubing shall be removed and brought to a stockpile site that will be chosen by the Council site inspector.

5. Use of Herbicide

Contractor shall maintain a Commercial Pesticide Operator's License and Commercial Applicator and/or Trainee's Licenses for all applicators or if using a subcontractor shall

use subcontractors that have those licenses. Contractor shall maintain appropriate licensing and shall present copies of operator, applicator and trainee licenses at Council site inspector's request. Council is not responsible for payment to Contractor in the event that Contractor fails to provide documentation upon request.

Council will reimburse Contractor at cost plus 10% for herbicide, surfactants, and indicator dye that Contractor uses while performing herbicide application services on Council projects. Contractor shall not be entitled to reimbursement for expenses incurred for any other category of services. Contractor shall apply Council approved herbicides in compliance with application guidelines provided in the Council's Herbicide Guidance, attached hereto as **Exhibit C** and incorporated herein. Contractor shall use only as much herbicide as is necessary to meet the invasive vegetation removal directives issued by Council site inspector or contained in any work order associated with this Master Contract. The specific amount of herbicide used will be in accordance with the label requirements. Herbicides shall not be applied when wind speed is greater than ten (10) mph or when the National Weather Service forecast calls for precipitation within 24 hours. There shall be no over-spray of herbicides onto native vegetation. Where necessary, Contractor shall manually or mechanically clear target vegetation away from native vegetation to protect native vegetation during spraying. In all cases, the spray mixture shall contain a colorant in the amount of one (1) percent or greater of the mixture. Contractor shall post Council provided public notice signs with legal re-entry periods at all public access points prior to spraying. Contractor shall submit copies of herbicide application records to Council with all invoices for herbicide application work completed.

6. Disposal of Waste Material

At the conclusion of work each day, Contractor shall gather and lawfully dispose of all empty boxes, bags, garbage and other waste material in a manner acceptable to Council.

7. The Role of the Council Site Inspector

Council and Contractor acknowledge that certain elements of site work in the environmental restoration field are not easily addressed in written plans or designs, and are better addressed in the field while work is underway. Accordingly, Council shall appoint a site inspector to make decisions concerning plant placement, planting technique, employment of specific maintenance techniques, the timing of irrigation, and other issues. Most decisions made by the site inspector will not affect Contractor's costs or the terms of the work order associated with this Master Contract that addresses the project. In the event that Council site inspector makes a significant change to the scope of work or the terms of the work order, the parties shall agree to the change in writing.

Council's use of a site inspector to direct and monitor field work will not relieve Contractor from responsibility for complying with the terms of this Master Contract or any Work Order associated to this Master Contract.

8. Inspection of Work

Council inspection will consist of on-site observations of cutting, above and below ground planting quality, herbicide application, and watering. The Council site inspector will sample at random one (1) percent of the total project site using 1/20 acre circular plots (26.3 foot radius). Deficient work will result in re-inspection by the Council site inspector using new plots selected at random and equal to one (1) percent of the project area. Council site inspector shall notify Contractor prior to inspections. Contractor is encouraged to observe inspections while they are underway.

Number of inspection plots based on acres:

Acres	Plot Size	Minimum # of Plots
0 > 24	1/20	5
25 ≥ 50	1/20	1 per 5 acres
51 ≥ 100	1/20	1 per 5 acres
100 +	1/20	1 per 5 acres

A. Inspection of Site Preparation and Maintenance Quality

Council may conduct inspections of work tasks (i.e. cutting, mowing, scalping, mulch application, etc.) during work or immediately thereafter to ensure compliance with Council standards. Should Contractor's work quality fail to meet Council standards in greater than 20 percent of plot samples, Council site inspector may terminate work for the day. To resume work, Contractor must agree to improve work quality to greater than 80 percent in the deficient area(s). If, upon re-inspection, work quality remains below 80 percent, Council shall not be obligated to pay for deficient work and may terminate any work order associated with the Master Contract.

B. Inspection of Planting Quality

Council may conduct inspections of planting quality during planting or immediately thereafter to ensure compliance with Council standards. Should Contractor's work quality fail to meet Council standards in greater than 20 percent of plot samples, Council site inspector may terminate work for the day. To resume work, Contractor must agree to improve planting quality to greater than 80 percent in the deficient area(s) by re-wetting and re-planting all of the plants and re-installing all plant protection devices within the area(s). If, upon re-inspection, planting quality remains below 80 percent, Council shall not be obligated to pay for deficient work and may terminate any work order associated with the Master Contract.

Within each plot, the following planting techniques will be assessed:

Above Ground	**Below Ground**
a. Scalping (16" or 48")	g. Planting hole preparation
b. Tree placement	h. Planting hole orientation
c. Planting depth	i. Root configuration and orientation
d. Stem position or damage	j. Altered root length (if unwarranted)
e. Firming / tamping	k. Foreign material and/or air pockets

f. Spacing

C. Inspection of Herbicide Application

Council may conduct inspections of herbicide application during work or immediately thereafter to ensure compliance with Council standards. If herbicide (indicated by blue dye) is present on greater than five (5) percent of non-target plants in plot samples, Council site inspector may terminate work for the day. To resume work, Contractor must agree to improve herbicide application quality so that no less than 95 percent of target plants have been applied with herbicide as indicated by blue dye. If, upon re-inspection, work quality remains below 95 percent, Council shall not be obligated to pay for deficient work and may terminate any work order associated with the Master Contract.

9. Notification of Subcontracting

Contractor shall notify the Council upon entering into any subcontracting arrangement. This notification shall include at a minimum:

- Name, address, telephone number of Subcontractor;
- Date upon which the subcontract was established and its duration;
- List of tasks from the Scope of Work that will be subcontracted;
- Copies of Subcontractor's representative authority (i.e. Oregon Farm/Forestry/Landscape Contractor's License, Farm Labor Contractor Certificate of Registration) and liability insurance certificate(s); and
- Copies of Oregon Commercial Pesticide Operator License, Oregon Commercial Pesticide Applicator License, and Trainee Licenses, if applicable.

10. Work Acceptance and Invoices

Contractor may invoice Council for completed work following Council site inspector's acceptance of work.

Council shall not be obligated to accept work that contains material deficiencies as defined in **Section 8** of this Master Contract.

Contractor invoices shall be based on work units completed and accepted and shall include the following information: Contractor Name, Invoice Number, Invoice Date, Project Name, Work Description, Completion Date, Unit Price, Number of Units, Extended Price, Invoice Total, and Contract Balance on the Work order.

11. Payment

Council's payment for Contractor's work shall be based on work units completed and accepted. Payment shall be made at unit prices except for reimbursement for materials provided by Contractor. Payments for work satisfactorily completed will be made to Contractor within 30 days of receipt of invoice from Contractor.

12. Liquidated Damages

At project sites, the Council incurs damages when desired native vegetation is damaged or destroyed by Contractor. The damages include the cost of plant material, additional Contract administration, and the loss of plant growth that would enhance resource values. As the extent of these damages is difficult to determine, Contractor hereby agrees to pay fixed, agreed, and liquidated damages at the rate of $4.50 per plant for every native plant destroyed by Contractor in excess of five (5) percent of the native plants within the project area plots inspected under **Section 8** of this Master Contract.

13. Work Hours

To promote work quality, Contractor's employees shall not work more than 8 hours in the field on any work day without Council's permission. All field work shall be performed Monday through Friday during daylight hours unless Council Project Manager grants permission to do otherwise. Contractor shall obey all applicable noise ordinances in completion of work.

ATTACHMENT 1, EXHIBIT B

CONTRACTOR UNIT PRICES

(Tasks involving machinery are noted with an asterisk; please describe machinery proposed to be used for these tasks and the applicable mobilization fee)

Task	Site Code	Unit	Contractor Pricing	Davis-Bacon Act Contractor Pricing
Project Planning/Surveying - GIS/GPS and Mapping Services	n/a	Hour		
Project Planning/Surveying – Tree Marking	n/a	Hour		
Project Planning/Surveying - Timber Volume Estimation	n/a	Hour		
Project Planning/Surveying - Botanical Surveys	n/a	Hour		
Project Planning/Surveying - Project Management	n/a	Hour		
Project planning/Surveying – Burn Plan Writing	n/a	Hour		
Manual Thinning / Fuels Reduction / Oak Release	n/a	Hour		
Manual “Jackpot” Burn Pile Creation	n/a	Hour		
Mechanized “Jackpot” Burn Pile Creation	n/a	Hour		
Manual “Rick” Burn Pile Creation	n/a	Hour		
Mechanized “Rick” Burn Pile Creation	n/a	Hour		
Burn “Jackpot” Piles	n/a	Hour		
Manual Biochar Burn of “Rick” Piles	n/a	Hour		
Mechanical Biochar Burn*	n/a	Hour		
Prescribed burning by the acre	n/a	Acre		
Prescribed burning by the day TOTAL PRICE	n/a	Day		
Equip./Staff A*	n/a	Day		
Equip./Staff B*				
Equip./Staff C*				
Equip./Staff D*				
Equip./Staff E*				
Equip./Staff F*				
Equip./Staff G*				
Fire watch	n/a	Hour		
Chipping of Woody Debris*	n/a	Hour		

Task	Site Code	Unit	Contractor Pricing	Davis-Bacon Act Contractor Pricing
Snag Creation / Tree Climbing	n/a	Hour		
Snag Creation	n/a	Each		
Tree Girdling	n/a	Each		
Tree climbing - Install Roosting Slit / Cavity Start on Created Snag	n/a	Each		
Tree climbing - Install Roosting Slit / Cavity Start on Girdled Tree	n/a	Each		
Excavation / Large Woody Debris Placement / Equipment Operation	n/a	Hour		
Equipment A*				
Equipment B*				
Equipment C*				
Equipment D*				
Equipment E*				
Mechanized Thinning / Fuels Reduction / Oak Release	n/a	Hour		
Equipment A*				
Equipment B*				
Equipment C*				
Equipment D*				
Equipment E*				
Log Trucking - Long Load	n/a	Hour		
Log Trucking - Mule Train				
Log trucking - Self Loader				
Field Flail or Rotary Mow - Tractor*	n/a	Hour		
Field Flail or Rotary Mow - Excavator*				
Field Flail or Rotary Mow – Skid-steer*				
Field Flail or Rotary Mow - Tractor*	1a	Acre		
Field Flail or Rotary Mow - Tractor*	1b			
Field Flail or Rotary Mow - Tractor*	1c			
Field Flail or Rotary Mow - Tractor*	2a			
Field Flail or Rotary Mow - Tractor*	2b			
Field Flail or Rotary Mow - Tractor*	2c	Acre		

Task	Site Code	Unit	Contractor Pricing	Davis-Bacon Act Contractor Pricing
Field Flail or Rotary Mow - Excavator*	1a	Acre		
Field Flail or Rotary Mow - Excavator*	1b			
Field Flail or Rotary Mow - Excavator*	1c			
Field Flail or Rotary Mow - Excavator*	2a			
Field Flail or Rotary Mow - Excavator*	2b			
Field Flail or Rotary Mow - Excavator*	2c			
Field Flail or Rotary Mow – Skid-steer*	1a	Acre		
Field Flail or Rotary Mow – Skid-steer*	1b			
Field Flail or Rotary Mow – Skid-steer*	1c			
Field Flail or Rotary Mow – Skid-steer*	2a			
Field Flail or Rotary Mow – Skid-steer*	2b			
Field Flail or Rotary Mow – Skid-steer*	2c			
Planting Site Prep - Rip Ground*	n/a	Hour		
Hand Mow/Cut	1a	Acre		
Hand Mow/Cut	1b			
Hand Mow/Cut	1c			
Hand Mow/Cut	2a			
Hand Mow/Cut	2b			
Hand Mow/Cut	2c			
Push Mow	1a	Acre		
Push Mow	1b			
Push Mow	1c			
Push Mow	2a			
Push Mow	2b			
Push Mow	2c			
Cut Blackberry/Brush	1a	Acre		
Cut Blackberry/Brush	1b			
Cut Blackberry/Brush	1c			
Cut Blackberry/Brush	2a			
Cut Blackberry/Brush	2b			
Cut Blackberry/Brush	2c			
Site Prep - Scalp (16”)	n/a	Each		

Task	Site Code	Unit	Contractor Pricing	Davis-Bacon Act Contractor Pricing
Site Prep - Scalp (48”)				
Hand or Crank Broadcast Seed	n/a	Acre		
Machine Broadcast or Drill Seed*				
Apply Dry Straw Mulch	n/a	Acre		
Planting - Install Small Bare Root Plants	1a	Each		
Planting - Install Small Bare Root Plants	1b			
Planting - Install Small Bare Root Plants	1c			
Planting - Install Small Bare Root Plants	2a			
Planting - Install Small Bare Root Plants	2b			
Planting - Install Small Bare Root Plants	2c			
Planting - Install Large Bare Root Plants	n/a	Each		
Planting - Install Containerized Plants	n/a	Each		
Planting - Install Plugs	n/a	Each		
Planting - Harvest 18-Inch Pole Cuttings	n/a	Each		
Planting - Harvest 48-Inch Pole Cuttings				
Planting - Harvest 72-Inch Pole Cuttings				
Planting - Install 18-Inch Pole Cuttings	n/a	Each		
Planting - Install 48-Inch Pole Cuttings				
Planting - Install 72-Inch Pole Cuttings				
Planting - Install Bamboo or Hardwood Stakes	n/a	Each		
Planting - Apply Mulch with Vehicle Access	n/a	Each		
Planting - Apply Mulch with Foot Access				
Planting - Install Vexar or Equivalent Mesh Tube and Bamboo or Hardwood Stakes	n/a	Each		
Planting - Install Blue Poly or Equivalent Solid Tube and Bamboo or Hardwood Stakes	n/a	Each		

Task	Site Code	Unit	Contractor Pricing	Davis-Bacon Act Contractor Pricing
Planting - Install Wire Cage with Post(s)	n/a	Each		
Transport Extra Materials	n/a	Hour		
Hourly Planting	n/a	Hour		
Maintenance - Hand Mow/Cut	1a	Acre		
Maintenance - Hand Mow/Cut	1b			
Maintenance - Hand Mow/Cut	1c			
Maintenance - Hand Mow/Cut	2a			
Maintenance - Hand Mow/Cut	2b			
Maintenance - Hand Mow/Cut	2c			
Maintenance - Push Mow	1a	Acre		
Maintenance - Push Mow	1b			
Maintenance - Push Mow	1c			
Maintenance - Push Mow	2a			
Maintenance - Push Mow	2b			
Maintenance - Push Mow	2c			
Hourly Hand Cutting	n/a	Hour		
Hourly Push Mow				
Boom Spray*	n/a	Acre		
ATV-based Spot/Area Herbicide Application*	n/a	Acre		
Hack and Squirt Herbicide Application	n/a	Hour		
Basal Bark Herbicide Application	n/a	Hour		
Backpack Spot or Area Herbicide Application	1a	Acre		
Backpack Spot or Area Herbicide Application	1b			
Backpack Spot or Area Herbicide Application	1c			
Backpack Spot or Area Herbicide Application	2a			
Backpack Spot or Area Herbicide Application	2b	Acre		
Backpack Spot or Area Herbicide Application	2c			

Task	Site Code	Unit	Contractor Pricing	Davis-Bacon Act Contractor Pricing
Hourly Backpack Spot or Area Herbicide Application	n/a	Hour		
Hourly Boom Herbicide Application*				
Hourly Manual Aquatic Herbicide Application*				
Hourly ATV-based Spot/Area Herbicide Application*				
Manual Aquatic Invasive Species Removal	n/a	Hour		
Watering - Water on Site	n/a	Each		
Watering - Water off Site				
Hourly Watering - Water on Site	n/a	Hour		
Hourly Watering - Water off Site				
Maintenance - Install Watering Bags	n/a	Each		
Maintenance - Remove Tree Tubes and/or Stakes	n/a	Hour		

ATTACHMENT 1, EXHIBIT C

HERBICIDE APPLICATION GUIDANCE

1.0 INTRODUCTION

The following guidelines are for non-native, invasive vegetation management. These guidelines are intended for use in conjunction with the restoration of natural hydrologic and ecosystem function and a comprehensive native species revegetation program.

2.0 NON-NATIVE, INVASIVE VEGETATION MANAGEMENT

Changes to hydrologic and ecosystem processes have resulted in watershed conditions that allow certain non-native plants to dominate wetland and riparian areas, as well as forests and prairies. These aggressive species outcompete native vegetation and contribute to the degradation of ecosystem function and water quality. The overall goal is to restore functional ecosystems with balanced and diverse vegetation. In many cases, the presence of aggressive species are simply indicators of ecological succession proceeding in the absence of disturbance through acts of nature, such as seasonal flooding in riparian areas, or human stewardship, such as broadscale burning across oak-prairie ecosystems. While the restoration of these broader processes are complex and will take time, it is deemed necessary in the meantime to support vegetative diversity by reducing the cover and spread of aggressive plant species to allow for the recovery or establishment of other species. The management of aggressive species often occurs over a period of three to five years.

Plants included in the Target Species List (**Exhibit E**) may be removed from natural areas without permits, as long as the management strategies employed are an integrated pest management (IPM) approach based on the species and site conditions. Other non-native plants not included in this section may also be removed, but are not of primary concern to the Council at this time.

The characteristics considered during development of the Target Species List include:

- Level of invasiveness
- Potential to displace native plants and to form a monoculture
- Oregon state listing
- Impact to aquatic and riparian resources

The Council supports invasive vegetation management activities that minimize impacts to water quality and aquatic resources. Consequently, the Council gives primary consideration to "cultural" methods of vegetation management. Cultural management incorporates natural processes or shifts in maintenance regimes to achieve the desired results. Manual or mechanical means of vegetation management including the use of mowers, chain saws, brush-cutters, etc. are next in line of preference, and shall be utilized where feasible. Herbicides shall be used only in conjunction with the methods described above. Although complete eradication of some non-native, invasive species may be an unreasonable

expectation due to conditions in and surrounding a project area, the thoughtful application of an IPM program generally provides a measure of control, sufficient to support ecological succession.

3.0 HERBICIDE USE

The Council recognizes that the careful selection and application of chemical herbicides, in conjunction with other control methods, is a component of successful vegetation management. Council contractors are required to comply with all herbicide label directions, safety laws, and local, state, and federal herbicide regulations.

3.1 General Criteria for Herbicide Use

Human and environmental safety are of the utmost importance when herbicides are used at Council projects. Herbicides may be used on Council project sites only when the following criteria are met:

1) Landowners approve of and are notified of the proposed herbicide application.
2) Non-toxic blue dye is used in the chemical mix to identify treated plants;
3) Applicators adhere to all of the label requirements concerning the safe and effective use of the herbicide(s); and
4) Persons applying the herbicide are Oregon Department of Agriculture licensed applicators or appropriately supervised licensed trainee applicators.

3.2 Site-Specific Herbicide Use

Sensitive Areas

Streams

In the rare need for control of invasive emergent plants within streams, manual or mechanical means will be utilized where possible. When these methods are not feasible, plants may be controlled using spot application of glyphosate or imazapyr and an approved surfactant, if needed. Chemical application shall be limited to mid-summer and shall not exceed a frequency of 1-2 times per year, unless more aggressive control is needed for specific plants.

Ponds and Lakes

Herbicides will be used only for the control of non-native, invasive plants that threaten the health of the habitat. When chemical methods are necessary, plants may be controlled using spot applications of glyphosate or imazapyr and an approved surfactant.

Wetlands

Herbicides will be used only for the control of non-native, invasive plants that threaten the health of the habitat. When chemical methods are necessary, plants may be controlled using spot or area applications of appropriately-labeled herbicides and an approved

surfactant, if needed. Chemical application shall not exceed a frequency of 1-2 times per year, unless more aggressive control is needed for specific plants.

Riparian Corridors

Herbicide use within Riparian Corridors will be limited to the control of non-native, invasive plants that threaten the health of the habitat. Spot or area herbicide application may be used during site preparation and maintenance for revegetation.

3.3 Herbicide Application Decisions and Procedures

Herbicide application should be carried out by hand with directed, low volume, single wand sprayers, wiping, daubing and painting equipment, or injection systems. Area application of herbicides using booms should only be used in areas of severe infestation of non-native, invasive plants at least 100' from the ordinary high water mark of any stream. Managing herbicide drift is of particular importance when either surface waters or beneficial plants are nearby. Nozzle size, pressure regulation, droplet size, and height of spray wand are all techniques that can be modified to reduce unwanted drift of herbicides. The use of a coarse spray and/or wipes minimizes the formation of fine mists that might be carried off target. Equipment used in the application shall employ all necessary methods to limit drift and ensure that the herbicide reaches targeted plants or targeted soil surfaces.

Herbicides shall never be applied under any of following conditions:

- air temperature is over 80 degrees Farenheit
- it is raining
- it is expected to rain within the next 24 hours
- wind speed is above ten (10) miles per hour
- wind direction or activity would carry herbicides toward or onto open water or sensitive crops (e.g. grapes)
- pets or livestock have access to application sites prior to re-entry timeframe specified on the label

Application procedures:

1. Read herbicide label
2. Check and calibrate application equipment for safety and efficiency.
3. Check weather conditions. Applications should be done with calm wind conditions to prevent drift. Adjustments should be made for droplet size and pressure if marginal conditions exist. No application should be done where there is unacceptable drift.
4. Apply material according to the label and in accordance with State and Federal regulations.
5. Record herbicide application on application forms.

4.0 WORKER PROTECTION STANDARD

The federal Worker Protection Standard (WPS) is designed to protect employees engaged in herbicide application from occupational exposure to herbicides. WPS contains

requirements for notifying employees of applications, the use of personal protective equipment (PPE) and restrictions on entry into treated areas.

Specific PPE information is available on the product label and in the Material Safety Data Sheets. Personnel engaged in any way with the contact of herbicides shall follow all of the clothing and equipment requirements listed on the herbicide label, or in the Material Safety Data Sheets for the appropriate herbicide.

5.0 LICENSING

The Council requires that herbicides be applied by licensed herbicide applicators as defined by the Oregon Department of Agriculture's "A guide to Herbicide-Related Licensing in Oregon." Council contractors must have Commercial Operator Licenses and the appropriate Commercial Applicator or Trainee Licenses for each applicator. Ultimate responsibility for maintaining a valid license lies with the applicator.

6.0 HERBICIDE STORAGE AND TRANSPORT

Herbicides or herbicide containers shall be kept in secure and safe locations in accordance with existing local, state, and federal laws. This includes keeping them in locked, well-ventilated, dry area where food and drinks are never stored or prepared. The floor should be made of concrete or lined with plastic or other impermeable surface. Containers shall be labeled with the following information: contents (ratio of herbicide, surfactant, water, etc.), date mixed, and volume remaining when placed in storage. Areas used for storage shall be labeled. Herbicides shall be safeguarded from environmental damage (freezing, vaporizing, photodecomposition or moisture).

Herbicides shall not be transported in passenger cabs of vehicles but shall be secured within the truck bed in tightly sealed containers. Only licensed herbicide applicators shall transport herbicides.

7.0 HERBICIDE APPLICATION RECORDS

State law requires that written records be kept for certain types of herbicide applications. The law requires that licensed applicators record the details of herbicide applications and keep these records for no less than three years. These records must be available for review by both the Oregon Department of Agriculture and the Council. **Spray reports are required to be submitted to the Council with all invoices for herbicide application activities. Contractors will not be paid for herbicide application work until spray reports are submitted.**

8.0 USE OF REMAINING SOLUTIONS AND RINSES

All herbicide solutions and rinses should be applied to target areas according to label directions. If this is not possible, these solutions and rinses may also be disposed of at an authorized herbicide disposal site.

Contractor shall conduct herbicide operations so that disposal of material is not necessary. Herbicide solutions and rinses are applied according to the label and to legal target areas so there are no remaining herbicides. This shall be accomplished by accurately gauging the amount of herbicide needed for the application. To reduce the amount of excess rinseate, Contractors shall rinse equipment only at the end of the spray cycle or when changing to herbicides that are incompatible with those in the tank.

Following are some considerations to make before starting to spray to ensure the proper amount of herbicide is mixed.

- Weather conditions and predictions.
- Acreage / square footage of the job site.
- Calendar: special events, mowing, irrigation, etc.
- Type and size of the equipment appropriate to do the job.

When applying the chemical herbicide, use the following procedures to reduce and safely store the rinse solution. These are secondary to label information and State and Federal regulation.

Recommended rinse process:

1. Read the herbicide label. The following should not conflict with label information or State or Federal regulations. Contact your supervisor if you see a conflict or have questions.
2. Wear protective clothing, as listed on the label or in the Material Safety Data Sheets (MSDS) when handling herbicides, herbicide containers or herbicide equipment.
3. Fill the spray equipment approximately 1 / 4 full with clean water. Add a neutralizing agent if the herbicide label recommends one. Shake or agitate so that all inside surfaces are washed. If possible use the spray hose to rinse the inside surface of the tank. These procedures should coincide with all labels. If possible, rinse containers near application site and apply the wastewater to weeds.
4. Spray the rinse water out of the spray equipment onto an approved target area. Rinse water should be run through all hoses, booms, etc. Filters should be cleaned. Because of the dilute nature of the herbicide in the rinse water, a coarse spray can be used and it is recommended to save time. Do not “pond” or saturate the soil.
5. If the tank is to be stored, repeat step 3 and 4 above, without a neutralizing agent.

9.0 DISPOSAL OF EMPTY CONTAINERS AND UNUSABLE HERIBICIDE

Agencies involved in the regulation of herbicide disposal include the Oregon State Department of Agriculture, Department of Environmental Quality (DEQ), Environmental Protection Agency, and State and Federal OSHA programs. Contractors shall dispose of herbicides and empty herbicide containers in accordance with all State and Federal regulations and label recommendations. The disposal of these materials requires care in handling and use of all necessary protective equipment.

Unusable herbicides are ones that: 1) are damaged through vaporization, freezing, infiltration of moisture to containers, or photo decomposition; 2) have exceeded their shelf life; or 3) have visually changed their composition or structure in some manner.

1. The person disposing of herbicides should keep a record of distribution on file for three years stored with the other spray records.

2. If the herbicide has less activity due to the long storage, moisture or freeze damage, follow the recommendations of the dealer, manufacturer, or licensed consultant and use procedures as they apply.

    - One option could be to apply the material realizing that full control is not achievable using the damaged herbicide.
    - If this option cannot be followed legally, follow recommendations of the dealer or manufacturer or licensed consultant. It is not legal to transfer damaged or altered herbicides to another party for use. It may be necessary to arrange for disposal of the herbicide in a manner recommended by DEQ.

10.0 ACCIDENTAL HERBICIDE EXPOSURE

Contractors who apply herbicide must remain informed of proper procedures to be taken in case of herbicide exposure. Material Safety Data Sheet information is available to all applicators. This information includes symptoms and procedures for handling overexposure to individual herbicides.

An individual inquiring about herbicide exposure should be referred to his or her personal physician, the Oregon Poison Center (OPC), and the Herbicide and Analytical Response Center (PARC).

Preparation and Accident Prevention

- Research symptoms and problems of each herbicide to be used in Material Safety Data Sheets.
- Use all safety procedures and protective gear as recommended on the label or in the Material Data Safety Sheets.

- Have a copy of the appropriate label available while applying or transporting herbicides, both concentrated and dilute.

Medical Emergency

- Call 911 for emergency assistance.
- Contact the Oregon Poison Center.
- Take a label for reference for medical personnel if it is necessary to leave the site.
- Inform your supervisor as soon as possible.

Attachment 1, Exhibit D
Definitions

- ***Certified Arborist*:** An Arborist certified by the International Society of Arboriculture (ISA).
- ***Critical Root Zone:*** The area around the trunk of the tree that: (a) Has a radius of 1.5 feet per inch of tree diameter 18 inches times the diameter at breast height expressed in inches of the tree trunk or trunks; or (b) Encompasses an area determined for an individual tree to be the necessary root area for the tree's continued normal growth as demonstrated in a written report by a certified arborist and based on a documented field investigation and non-destructive physical testing, including, but not limited to non- destructive excavation to delineate the root system to a minimum depth of 24 inches below grade, and no more than 48 inches below grade. (c) For trees 4 inches in diameter or smaller, is an area with a radius of at least 5 feet from the trunk.
- ***Diameter at Breast Height (DBH):*** The diameter of a tree trunk or trunks measured at 4.5 feet above mean ground level at the base of the main stem. When there are multiple trunks, the diameter at breast height will be established by considering the two largest trunks measured at 4.5 feet above mean ground level at the base of the main stems.
- ***Dibble Stick**:* a sharp stick for making holes in the ground into which pole cuttings can be easily inserted.
- ***Healthy:*** Plants that are growing in a condition that expresses leaf size, crown density, color; and with annual growth rates typical of the species and cultivar's horticultural description, adjusted for the planting site soil, drainage and weather conditions.
- ***Maintenance:*** Actions that preserve the health of plants after installation and as defined in this specification.
- ***Ordinary High Water Mark:*** The Ordinary High Water Mark is a line on the bank or shore of a stream to which the **high water** ordinarily rises each year and is the waterward limit of upland vegetation and soil.
- ***Root ball:*** The mass of roots including any soil or substrate that is shipped with the tree within the root ball package.
- ***Root collar*** (root crown, root flare, trunk flare, flare): The region at the base of the trunk where the majority of the structural roots join the plant stem, usually at or near ground level.
- ***Severely Kinked root:*** A root within the root package that bends more than 90 degrees.
- ***Spray boom*:** A pipe with attached nozzles for distributing spray from a tank.
- ***Stem girdling root*:** Any root more than ¼ inch diameter currently touching the trunk, or with the potential to touch the trunk, above the root collar approximately tangent to the trunk circumference or circling the trunk. Roots shall be considered as Stem Girdling that have, or are likely to have in the future, root to trunk bark contact.

Attachment 1, Exhibit E
Target Species List

Plant Type	Species Code	Latin Name	Common Name	ODA State Noxious Weed Classification
Aquatic	LUHE	*Ludwigia hexapetala*	Water primrose	B
Aquatic	MYAQ	*Myriophyllum aquatica*	Parrot feather	B
Aquatic	MYSP	*Myriophyllum spicatum*	Eurasian watermilfoil	B
Forb	ALPE	*Alliaria petiolata*	Garlic Mustard	B
Forb	ARMI	*Arctium minus*	Burdock	
Forb	BRCA	*Brassica campestris*	Field Mustard	
Forb	CEDI	*Centaurea diffusa*	Diffuse knapweed	B
Forb	CEMA	*Centaurea maculosa*	Spotted knapweed	B
Forb	CENI	*Centaurea nigra*	Black knapweed	B
Forb	CEPR	*Centaurea pratensis*	Meadow knapweed	B
Forb	CESO	*Centaurea solstitialis*	Yellow starthistle	B
Forb	CIAR	*Cirsium arvense*	Canada Thistle	B
Forb	CIVU	*Cirsium vulgare*	Common Thistle / Bull Thistle	B
Forb	CLVI	*Clematis vitalba*	Traveler's Joy	B
Forb	COMA	*Conium maculatum*	Poison Hemlock	B
Forb	COAR	*Convolvulus arvensis*	Field Morning Glory / Field Bindweed	B
Forb	CYOF	*Cynoglossum officinale*	Houndstongue	B
Forb	DISY	*Dipsacus sylvestris*	Teasel	
Forb	FAJA	*Fallopia japonica (Polygonum)*	Japanese Knotweed	B
Forb	FASA	*Fallopia sachalinensis (Polygonum)*	Giant Knotweed	B
Forb	GAVE	*Galium aparine*	Clevers Bedstraw	
Forb	GELU	*Geranium lucidum*	Shining Geranium	B
Forb	GERO	*Geranium robertianum*	Herb Robert	B
Forb	HEHE	*Hedera helix*	English Ivy	B
Forb	HEMA	*Heracleum mantegazzianum*	Giant Hogweed	A
Forb	IMPL	*Impatiens glandulifera*	Policeman's helmet	B
Forb	IRPS	*Iris pseudoacorus*	Yellow Flag Iris	B
Forb	LAGA	*Lamiastrum galeobdolon*	Yellow archangel	B
Forb	LOCO	*Lotus corniculatus*	Birdsfoot Trefoil	

Forb	LYSA	*Lythrum salicaria*	Purple Loosestrife	B
Forb	PORE	*Potentilla recta*	Sulfur cinquefoil	B
Forb	POSA	*Polygonum sachalinense*	Giant Knotweed	B
Forb	RAFI	*Ranunculus ficaria*	Lesser celandine	B
Forb	SEJA	*Senecio jacobaea*	Tansy Ragwort	B
Forb	SODU	*Solanum dulcamara*	Bittersweet Nightshade	
Forb	SIMA	*Silybum marianum*	Milk thistle	B
Grass	AGST	*Agrostis stolonifera*	Creeping bentgrass	
Grass	ALPR	*Alopecurus pratensis*	Meadow Foxtail	
Grass			Bamboo spp.	
Grass	BRSY	*Brachypodium sylvaticum*	False brome	B
Grass	HOLA	*Holcus lanatus*	Velvertgrass	
Grass	LOPE	*Lolium perenne*	Perennial ryegrass	
Grass	FEAR	*Festuca arundinacea*	Tall Fescue	
Grass	PHAR	*Phalaris arundinacea*	Reed Canarygrass	B
Grass	PHAQ	*Phalaris aquatica*	Harding grass	
Grass			*Other pasture grasses*	
Shrub	CYSC	*Cytisus scoparius*	Scot's Broom	B
Shrub	DALA	*Daphne laureola*	Spurge laurel	B
Shrub	ILAQ	*Ilex aquifolium*	English Holly	
Shrub	PRLA	*Prunus laurocerasus*	English or Portugese Laurel	
Shrub	ROSP	*Rosa ssp*	Non-native Roses	
Shrub	RULA	*Rubus laciniatus*	Evergreen Blackberry	B
Shrub	RUDI	*Rubus armenicus*	Himalayan Blackberry	B
Shrub	VIMI	*Vinca minor*	Small-flowered periwinkle	
Tree	AIAL	*Ailanthus altissima*	Tree of Heaven	B
Tree	CRMO	*Crataegus monogyna*	European Hawthorn	
Tree	CROX	*Crataegus oxycantha*	English Hawthorn	
Tree	PRSP	*Prunus ssp.*	Non-native Cherries	

Attachment 2 - Long Tom Watershed Council Service Area