



REQUEST for PROPOSAL #920
PROFESSIONAL, TECHNICAL AND EXPERT SERVICES

Clark County Washington

RELEASE DATE: WEDNESDAY, APRIL 16, 2025
DUE DATE: WEDNESDAY, MAY 14, 2025 by 11:00 am

Request for Proposal for:

CAMP BONNEVILLE FORESTRY CONSULTING SERVICES

SUBMIT:

One (1) Original
Four (4) Complete Copies

of the Proposal to:

<u>Shipping Method of your Choice or Hand Delivery</u>	<u>United States Postal Service</u>
Clark County ATTN: Office of Purchasing 1300 Franklin Street, 6 th Floor, Suite 650 Vancouver WA 98660 564-397-2323	Clark County ATTN: Office of Purchasing PO Box 5000 Vancouver WA 98666-5000 564-397-2323

Office Hours: 8:00 am – 3:00 pm, Monday – Friday, except Legal Holidays.

No electronic submissions.

*****Proposals must be delivered to the Purchasing office – No Exceptions***

*****Proposals must be date and time stamped by Purchasing staff by 11:00 am on due date – No Exceptions***

*****Proposal shall be sealed and clearly marked on the package cover with RFP #, Title & Company Name***

Refer Questions to Project Manager:

Kevin Tyler
Lands Management Division Manager / Public Works
Kevin.Tyler@clark.wa.gov
564-397-1656

ADMINISTRATIVE REQUIREMENTS - Contractors shall comply with all management and administrative requirements established by Washington Administrative Code (WAC), the Revised Code of the State of Washington (RCW), and any subsequent amendments or modifications, as applicable to providers licensed in the State of Washington.

ALL proposals submitted become the property of Clark County. It is understood and agreed that the prospective Proposer claims no proprietary rights to the ideas and written materials contained in or attached to the proposal submitted. Clark County has the right to reject or accept proprietary information.

AUTHORSHIP - Applicants must identify any assistance provided by agencies or individuals outside the proposers own organization in preparing the proposal. No contingent fees for such assistance will be allowed to be paid under any contract resulting from this RFP.

CANCELLATION OF AWARD - Clark County reserves the right to immediately cancel an award if the contractual agreement has not been entered into by both parties or if new state regulations or policy make it necessary to change the program purpose or content, discontinue such programs, or impose funding reductions. In those cases where negotiation of contract activities are necessary, Clark County reserves the right to limit the period of negotiation to sixty (60) days after which time funds may be unencumbered.

CONFIDENTIALITY - Proposer shall comply with all applicable state and federal laws governing the confidentiality of information.

CONFLICT OF INTEREST - All proposals submitted must contain a statement disclosing or denying any interest, financial or otherwise, that any employee or official of Clark County or the appropriate Advisory Board may have in the proposing agency or proposed project.

CONSORTIUM OF AGENCIES - Any consortium of companies or agencies submitting a proposal must certify that each company or agency of the consortium can meet the requirements set forth in the RFP.

COST OF PROPOSAL & AWARD - The contract award will not be final until Clark County and the prospective contractor have executed a contractual agreement. The contractual agreement consists of the following parts: (a) the basic provisions and general terms and conditions, (b) the special terms and conditions, (c) the project description and goals (Statement of Work), and (d) the budget and payment terms. Clark County is not responsible for any costs incurred prior to the effective date of the contract. Clark County reserves the right to make an award without further negotiation of the proposal submitted. Therefore, the proposal should be submitted in final form from a budgetary, technical, and programmatic standpoint.

DISPUTES - Clark County encourages the use of informal resolution to address complaints or disputes arising over any actions in implementing the provisions of this RFP. Written complaints should be addressed to Clark County – Purchasing, P.O. Box 5000, Vancouver, Washington 98666-5000.

DIVERSITY IN EMPLOYMENT AND CONTRACTING REQUIREMENTS - It is the policy of Clark County to require equal opportunity in employment and services subject to eligibility standards that may be required for a specific program. Clark County is an equal opportunity employer and is committed to providing equal opportunity in employment and in access to the provision of all county services. Clark County's Equal Employment Opportunity Plan is available at <http://www.clark.wa.gov/hr/documents.html>. This commitment applies regardless of race, color, religion, creed, sex, marital status, national origin, disability, age, veteran status, on-the-job injury, or sexual orientation. Employment decisions are made without consideration of these or any other factors that are prohibited by law. In compliance with department of Labor Regulations implementing Section 504 of the rehabilitation Act of 1973, as amended, no qualified handicapped individual shall be discriminated against in admission or access to any program or activity. The prospective contractor must agree to provide equal opportunity in the administration of the contract, and its subcontracts or other agreements.

MUNICIPAL RESEARCH and SERVICE CENTER - Clark County (WA) contracts with the Municipal Research and Service Center (MRSC) to maintain our Consultant, Small Works and Vendor rosters. To be eligible to participate in this Clark County public solicitation and the resulting contract, your business must be registered with the MRSC Rosters. Failure to register may result in your proposal being marked nonresponsive. Be sure to select Clark County in your application. If you have questions about the registration process, contact the MRSC Rosters at 206-436-3798 or <https://mrscrosters.org/businesses/business-membership/>

INDEPENDENT PRICE DETERMINATION - The prospective contractor guarantees that, in connection with this proposal, the prices and/or cost data have been arrived at

independently, without consultation, communication, or agreement for the purpose of restricting competition. This does not preclude or impede the formation of a consortium of companies and/or agencies for purposes of engaging in jointly sponsored proposals.

INTERLOCAL AGREEMENT - Clark County has made this RFP subject to Washington State statute RCW 39.34. Therefore, the proposer may, at the proposers option, extend identical prices and services to other public agencies wishing to participate in this RFP. Each public agency wishing to utilize this RFP will issue a purchase order (or contract) binding only their agency. Each contract is between the proposer and the individual agency with no liability to Clark County.

LIMITATION - This RFP does not commit Clark County to award a contract, to pay any costs incurred in the preparation of a response to this RFP, or to procure or contract for services or supplies.

LATE PROPOSALS - A proposal received after the date and time indicated above will not be accepted. No exceptions will be made.

ORAL PRESENTATIONS - An oral presentation may be required of those prospective contractors whose proposals are under consideration. Prospective contractors may be informed that an oral presentation is desired and will be notified of the date, time and location the oral presentation is to be conducted.

OTHER AUDIT/MONITORING REQUIREMENTS - In addition, auditing or monitoring for the following purposes will be conducted at the discretion of Clark County: Fund accountability; Contract compliance; and Program performance.

PRICE WARRANT - The proposer shall warrant that the costs quoted for services in response to the RFP are not in excess of those which would be charged any other individual or entity for the same services performed by the prospective contractor, in a similar socioeconomic, geographical region.

PROTESTS - Must be submitted to the Purchasing Department.

PUBLIC SAFETY - May require limiting access to public work sites, public facilities, and public offices, sometimes without advance notice. The successful Proposer's employees and agents shall carry sufficient identification to show by whom they are employed and display it upon request to security personnel. County project managers have discretion to require the successful Proposer's employees and agents to be escorted to and from any public office, facility or work site if national or local security appears to require it.

ACCEPTANCE or REJECTION OF PROPOSALS - Clark County reserves the right to accept or reject any or all proposals received as a result of this RFP, to negotiate with any or all prospective contractors on modifications to proposals, to waive formalities, to postpone award, or to cancel in part or in its entirety this RFP if it is in the best interest of Clark County to do so.

SUBCONTRACTING - No activities or services included as a part of this proposal may be subcontracted to another organization, firm, or individual without the approval of Clark County. Such intent to subcontract shall be clearly identified in the proposal. It is understood that the contractor is held responsible for the satisfactory accomplishment of the service or activities included in a subcontract.

VERBAL PROPOSALS - Verbal proposals will not be considered in making the award of any contract as a result of this RFP.

WORKERS COMPENSATION INSURANCE - The contractor shall comply with R.C.W. Title 51- with minimum coverage limits of \$500,000 for each accident, or provide evidence that State law does not require such coverage.

FOR ALTERNATIVE FORMATS
Clark County ADA Office: V: 564-397-2322
ADA@clark.wa.gov

Request for Proposals

Table of Contents

PART I PROPOSAL REQUIREMENTS

Section IA: General Information

1. Introduction
2. Background
3. Scope of Project
4. Project Funding
5. Title VI Statement
6. Timeline for Selection
7. Employment Verification

Section IB: Work Requirements

1. Required Services
2. County Performed Work
3. Deliverables and Schedule
4. Place of Performance
5. Period of Performance
6. Prevailing Wage
7. Debarred / Suspended
8. Americans with Disabilities Act (ADA) Information
9. Public Disclosure
10. Insurance/Bond
11. Plan Holders List

PART II PROPOSAL PREPARATION AND SUBMITTAL

Section IIA: Pre-Submittal Meeting/Clarification

1. Pre-Submittal Meeting
2. Proposal Clarification

Section IIB: Proposal Submission

1. Proposals Due
2. Proposal

Section IIC: Proposal Content

1. Cover Sheet
2. Project Team
3. Management Approach
4. Respondent's Capabilities
5. Project Approach and Understanding
6. Proposed Cost

PART III PROPOSAL EVALUATION & CONTRACT AWARD

Section IIIA: Proposal Review and Selection

1. Evaluation and Selection
2. Evaluation Criteria Scoring

Section IIIB: Contract Award

1. Consultant Selection
2. Contract Development
3. Award Review
4. Orientation/Kick-off Meeting

ATTACHMENTS

- A: Proposal Cover Sheet
- B: Letter of Interest
- C: Certification Regarding Debarment, Suspension and Other Responsibility Matters Form

EXHIBITS

- A. Map of Camp Bonneville; County's Contract for Professional Services; NRCS Fuel Break Specifications

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

Part I Proposal Requirements

Section IA	General Information
1. Introduction	<p>Clark County intends to award a contract for forestry consulting services to assist the county with forest management unit layout of shaded fuel breaks at Camp Bonneville. The work may include tree marking, timber cruising, buffering critical areas, stocking inventories, making recommendations on forest road maintenance activities, and other forestry consulting services in support of planning for shaded fuel breaks as needed.</p> <p>This is a qualifications-based selection process.</p> <p>Clark County (WA) contracts with the Municipal Research and Service Center (MRSC) to maintain our Consultant, Small Works and Vendor Rosters. To be eligible to participate in this Clark County public solicitation and the resulting contract your business must be registered with the MRSC Rosters. Failure to register may result in your proposal being marked nonresponsive. Be sure to select Clark County in your application. If you have questions about the registration process, contact the MRSC Rosters at 206-436-3798 or https://mrscrosters.org/businesses/business-membership/</p> <p>If your company contact details <u>are not</u> on the Plan Holder List at https://clark.wa.gov/internal-services/request-proposal-1 Attachment B, Letter of Interest must be submitted to participate in this RFP.</p> <p>Proposers shall respond to all sections to be considered.</p> <p>Clark County has made this Request for Proposal subject to Washington State statute RCW 39.34 Interlocal Cooperation Act. The proposer may opt to extend identical services and prices to qualified public agencies. Each contract is between the proposer and individual agency binding only their agency, with no liability to Clark County.</p>
2. Background	<p>Clark County Public Works is seeking proposals from qualified firms with demonstrated experience in forestry consulting in Southwest Washington. The successful firm will assist county staff who do not have availability to do this work by performing the field work and documentation necessary to layout shaded fuel breaks at Camp Bonneville.</p> <p>The 3,840-acre Camp Bonneville Military Reservation (CBMR) site is located northeast of Vancouver, Washington, in the southeastern region of Clark County. The address is 23201 NE Pluss Road, Vancouver, WA 98682. The property is approximately three miles northeast of the corporate limits of the City of Vancouver, Washington and approximately seven miles north of the Columbia River. The CBMR is located along the western foothills of the Cascade Mountain Range, with Camp Hill and Little Elkhorn Mountain to the northwest, Munsell Hill to the west, and Little Baldy Mountain to the south. Vehicular access to the CBMR is restricted to a single entrance from NE Pluss Road. The entrance is gated and monitored by facility managers.</p> <p>The mission of CBMR was to provide a training camp for active, reserve, and guard units of the United States Army, Navy, Marine Corps, and Coast Guard. Training exercises generally included weapons training with small arms, assault weapons, and field and air defense artillery. Between 1909 and 1995, live and practice munitions including artillery and mortar rounds, shoulder-fired rockets, land mines (practice only), grenades, and small-arms ammunitions were stored and used on the Property. In the 1980s, the Property was also used for non-military purposes including religious retreats, picnicking, camping, educational purposes, and pistol training for the State Police. Records indicate that munitions were disposed of by open burning or open detonation (OB/OD). The Property was closed in 1995 by the Base Realignment and Closure (BRAC) commission.</p>

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

	<p>The Army stopped using live artillery and switched to sub caliber (9mm) artillery simulators in the mid 1960's, approximately 40 to 45 years ago. The timber stands being harvested did not exist, or had just been re-planted, during those time frames. The county will be responsible for coordinating professional UXO safety support at all times during the contract.</p>
3. Scope of Project	<p>The successful firm will assist the county with planning and layout of shaded fuel breaks along approximately 6 miles of Camp Bonneville's north, west, and south fencelines (Exhibit A). Fuel break specifications will follow Natural Resources Conservation Service conservation practice specification for fuel breaks in forestlands (No. 383-Spec-1; Exhibit A-1) or similar guidance, to reduce the risk of spread of fire by determining the needed treatment, removal, or other modifications necessary of forestland vegetation along the Camp Bonneville perimeter fenceline.</p> <p>Work is anticipated to include necessary office and fieldwork to evaluate fuel loads, topography, road condition, and other factors to determine appropriate shaded fuel break widths and stocking levels following treatment. Consultant will then layout shaded fuel break management units, mark trees for removal, buffer critical areas, cruise timber, identify road segments in need of maintenance, and other activities needed to prepare the project for timber sale auction. Consultant will prepare forest practices application forms and maps for submittal to Department of Natural Resources. Consultant will prepare timber sale contract documents and maps in support of the county issuing a timber sale auction.</p>
4. Project Funding	<p>Clark County anticipates awarding a single contract for this work in an amount not to exceed \$200,000. The actual contract amount will be determined after the proposals have been reviewed. The project will be funded from the county's Camp Bonneville timber fund.</p>
5. Title VI Statement	<p><u>Title VI Statement</u></p> <p>Clark County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.</p> <p>El Condado de Clark, de acuerdo con las disposiciones del Título VI de la Ley de Derechos Civiles de 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d a 2000d-4) y el Reglamento, por la presente notifica a todos los postores que se asegurará afirmativamente de que cualquier contrato celebrado de conformidad con este anuncio, las empresas comerciales desfavorecidas tendrán la oportunidad plena y justa de presentar ofertas en respuesta a esta invitación y no serán discriminadas por motivos de raza, color u origen nacional en consideración a un laudo.</p> <p>La póliza del condado de Clark es garantizar que ninguna persona por motivos de raza, color, origen nacional o sexo según lo dispuesto en el Title VI of the Civil Rights Act de 1964, según enmendada, sea excluida por participar en, ser negado los beneficios de, o ser discriminado por cualquier programa o actividad patrocinada por el condado. Para preguntas relacionadas con el programa de Title VI de Obras Públicas del condado de Clark, o para servicios de interpretación o traducción para personas que no hablan inglés. O para que los materiales estén disponibles en un formato alternativo, comuníquese con el coordinador del Title VI de Obras Públicas del condado de Clark por correo electrónico a CCPW-TitleVI@clark.wa.gov o por teléfono a 564-397-4944. Las personas con problemas de audición / habla pueden llamar a Washington Relay Center al 711.</p> <p>For questions regarding Clark County Public Works' Title VI Program, or for interpretation or translation services for non-English speakers, or otherwise making materials available in an alternate format, contact Clark County Public Works' Title VI Coordinator via email at CCPW-TitleVI@clark.wa.gov</p>

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

	TitleVI@clark.wa.gov or phone at 564-397-4944. Hearing/speech impaired may call the Washington Relay Center at 711.													
6. Timeline for Selection	<p>The following dates are the intended timeline:</p> <table><tr><td>Proposals Dues</td><td>May 14, 2025</td></tr><tr><td>Proposal Review/Evaluation Period</td><td>May 15 – June 6, 2025</td></tr><tr><td>Interviews</td><td>June 6 – June 20, 2025</td></tr><tr><td>Selection Committee Recommendation</td><td>June 23, 2025</td></tr><tr><td>Contract Negotiation/Execution</td><td>August 5, 2025</td></tr><tr><td>Contract Intended to Begin</td><td>August 15, 2025</td></tr></table>		Proposals Dues	May 14, 2025	Proposal Review/Evaluation Period	May 15 – June 6, 2025	Interviews	June 6 – June 20, 2025	Selection Committee Recommendation	June 23, 2025	Contract Negotiation/Execution	August 5, 2025	Contract Intended to Begin	August 15, 2025
Proposals Dues	May 14, 2025													
Proposal Review/Evaluation Period	May 15 – June 6, 2025													
Interviews	June 6 – June 20, 2025													
Selection Committee Recommendation	June 23, 2025													
Contract Negotiation/Execution	August 5, 2025													
Contract Intended to Begin	August 15, 2025													
7. Employment Verification	<p>The Proposer, if awarded the Contract, shall register and enter into a Memorandum of Understanding (MOU) with the Department of Homeland Security E-Verify program before execution of the Contract. The Contractor shall ensure all Contractor employees and any sub-contractor(s) assigned to perform work under this Agreement are eligible to work in the United States. The Contractor shall provide verification of compliance upon County request. Failure by Contractor to comply with this subsection shall be considered a material breach.</p> <p>(Sole Proprietors must submit a letter stating such.)</p>													
Section IB	Work Requirements													
1. Required Services	<p>The selected firm will be used to assist with the planning and layout of shaded fuel breaks at Camp Bonneville. Work to be performed includes the following.</p> <ol style="list-style-type: none">1. Evaluation of topography, fuel load, forest canopy and understory, road condition, fence proximity, and neighboring risks to determine an appropriate shaded fuel break width along approximately 6 miles of Camp Bonneville fenceline.2. Layout shaded fuel break timber sale units including marking boundaries, buffering critical areas, and marking leave trees.3. Prepare all necessary forest practices application documents, maps, and supporting information for submittal to Department of Natural Resources.4. Identify road segments in need of maintenance activities necessary to support timber harvest.5. Develop timber sale contract and bid specifications needed for the county to auction the shaded fuel break timber sale.													
2. County Performed Work	<p>For this project the consultant will work closely with county staff. County will provide access to Camp Bonneville and necessary UXO and site safety briefing. County will provide access to available GIS data, aerial photography, and other data needed by the consultant. County will provide prior timber sale auctions and contracts and information about the county's sustainable</p>													

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

	forest management plan for the property. County will provide tree marking paint, flagging, boundary markers, and other supplies needed to layout the timber sale units.										
3. Deliverables & Schedule	<p>This is a suggested schedule and is subject to change:</p> <p>The deliverables and schedule will be determined with the consultant upon contract execution. The following is a tentative schedule subject to change:</p> <table border="1"> <tr> <td>Contract Start</td><td>August 15, 2025</td></tr> <tr> <td>Shaded Fuel Break Evaluation</td><td>September 5, 2025</td></tr> <tr> <td>Shaded Fuel Break Layout</td><td>October 30, 2025</td></tr> <tr> <td>Forest Practice Application</td><td>November 30, 2025</td></tr> <tr> <td>Timber Sale Contract and Specifications</td><td>December 31, 2025</td></tr> </table>	Contract Start	August 15, 2025	Shaded Fuel Break Evaluation	September 5, 2025	Shaded Fuel Break Layout	October 30, 2025	Forest Practice Application	November 30, 2025	Timber Sale Contract and Specifications	December 31, 2025
Contract Start	August 15, 2025										
Shaded Fuel Break Evaluation	September 5, 2025										
Shaded Fuel Break Layout	October 30, 2025										
Forest Practice Application	November 30, 2025										
Timber Sale Contract and Specifications	December 31, 2025										
4. Place of Performance	Contract performance will take place at Camp Bonneville for all necessary fieldwork. All other work necessary for completion of this contract will take place at the consultant's facility.										
5. Period of Performance	<p>A contract awarded as a result of this RFP will be for one (1) year) and is intended to begin on August 2025 and end August 2026.</p> <p>Total contract value including extensions will be determined by evaluating funds requested in the selected proposal(s) and approved funding.</p> <p>Clark County reserves the right to extend the contract resulting from this RFP for a period of three (3) additional years, in one (1) year increments, with the same terms and conditions, with the exception of cost, by service of a written notice of its intention to do so prior to the contract termination date. Cost for additional option year(s) shall be reviewed prior to extension of the contract.</p> <p>The county also reserves the right to terminate the contract, with thirty (30) days written notice, at any time if the requirements of the contract are not being met satisfactorily, solely in the county's judgment.</p>										
6. Prevailing Wage Applicable to all public work as defined in RCW 39.04.010(4) Public Works Definition	<p>Pursuant to Washington State RCW 39.12 PREVAILING WAGES ON PUBLIC WORKS all work identified in this project as a public work requires the contractor to pay Washington State prevailing wages and file all affidavits of intent to pay with the WA State Dept of Labor & Industries.</p> <p>Contractors shall meet the requirements for Prevailing Wage and public works requirements, per RCW 39.04.350 BIDDER RESPONSIBILITY CRITERIA – SWORN STATMENT – SUPPLEMENTAL CRITERIA.</p> <p>For this project select the Clark County rates that apply on the proposal closing date from either of these sites:</p> <p>http://www.wsdot.wa.gov/Design/ProjectDev/WageRates/default.htm http://www.ini.wa.gov/TradesLicensing/PrevWage/WageRates</p>										

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

	<p>Before payment is made by the Local Agency of any sums due under this contract, the Local Agency must receive from the Contractor and each Subcontractor a copy of "Statement of Intent to Pay Prevailing Wages" (Form L & I Number 700-29) approved by the Washington State Department of Labor and Industries.</p> <p>A fee of \$45.00 per each "Statement of Intent to Pay Prevailing Wages" and "Affidavit of Wages Paid" is required to accompany each form submitted to this Department of Labor and Industries. The Contractor is responsible for payment of these fees and shall make all applications directly to the Department of Labor and Industries. These fees shall be incidental to all the proposed items of this contract.</p>
7. Debarred/Suspended	<p>Federally or Washington State debarred or suspended suppliers may not participate in this Request for Proposal.</p> <p>All proposers must fill out, sign and submit the "Certification Regarding Debarment, Suspension, and Other Responsibility Matters" form with their proposal to be eligible to participate.</p>
8. Americans with Disabilities Act (ADA) Information	<p>Clark County in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. This material can be made available in an alternate format by emailing ADA@clark.wa.gov or by calling 564-397-2322.</p>
9. Public Disclosure	<p>This procurement is subject to the Washington Public Records Act (the "Act"), chapter 42.56 RCW. Once in the County's possession, all of the RFP Submittals shall be considered public records and available for public records inspection and copying, unless exempt under the Act.</p> <p>If a Respondent or Proposer considers any portion of an RFP Submittal to be protected under the law, whether in electronic or hard copy form, the Respondent or Proposer shall clearly identify each such portion with the word "PROPRIETARY". The County will notify the Respondent or Proposer in writing of the request and allow the Respondent or Proposer ten (10) days to obtain a court order enjoining release of the record(s). If the Respondent or Proposer does not take such action within the ten (10) day period, the County will release the portions of the RFP Submittal deemed subject to disclosure. All Respondents and Proposers who provide RFP Submittals for this procurement accept the procedures described above and agree that the County shall not be responsible or liable in any way for any losses that the party may incur from the disclosure of records to a third party who requests them.</p>
10. Insurance/Bond	<p>A. <u>Waiver of Subrogation</u></p> <p>All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against County, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these specifications to waive their right of subrogation prior to a loss. Contractor hereby waives its own right of subrogation against County and shall require similar written express waivers and insurance clauses from each of its subcontractors.</p> <p>B. <u>Proof of Insurance</u></p> <p>Proof of Insurance shall be provided prior to the starting of the contract performance. Proof will be on an ACORD Certificate(s) of Liability Insurance, which the Proposer shall provide to Clark County. Each certificate will show the coverage, deductible and policy period. Policies shall be endorsed to state that coverage will not be suspended, voided, canceled or reduced without a 30-day written notice by mail to the County. It is the Proposers responsibility to</p>

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

provide evidence of continuing coverage during the overlap periods of the policy and the contract.

C. Worker's Compensation

As required by the industrial insurance laws of the State of Washington.

D. Automobile

If the Proposer or its employees use motor vehicles in conducting activities under this Contract, liability insurance covering bodily injury and property damage shall be provided by the Proposer through a commercial automobile insurance policy. The policy shall cover all owned and non-owned vehicles. Such insurance shall have minimum limits of \$1,000,000 per occurrence, combined single limit for bodily injury liability and property damage liability with a \$1,000,000 annual aggregate limit. If the Proposer does not use motor vehicles in conducting activities under this Contract, then written confirmation to that effect on Proposer letterhead shall be submitted by the Proposer.

E. Commercial General Liability (CGL) Insurance

Written under ISO Form CG0001 or its latest equivalent with minimum limits of \$1,000,000 per occurrence and in the aggregate for each one-year policy period. Personal and Advertising Injury \$1,000,000 and General Aggregate \$2,000,000. This policy must renew annually. This coverage may be any combination of primary, umbrella or excess liability coverage affording total liability limits of not less than \$1,000,000 per occurrence and in the aggregate. However, if other policies are added they must be a follow-form policy in language, renewal date, and have no more exclusions than the underlying coverage. Products and Completed Operations coverage shall be provided for a period of three years following Substantial Completion of the Work. The deductible will not be more than \$50,000 unless prior arrangements are made with Clark County on a case-by-case basis; the criterion is the Contractor's liquidity and ability to pay from its own resources regardless of coverage status due to cancellation, reservation of rights, or other no-coverage-enforce reason. Coverage shall not contain any endorsement(s) excluding nor limiting Product/Completed Operations, Contractual Liability or Cross Liability. Clark County needs to be listed as additional insured.

F. Professional Liability (aka Errors and Omissions)

The Proposer shall obtain, at Proposers expense, and keep in force during the term of this contract Professional Liability insurance policy to protect against legal liability arising out of contract activity. Such insurance shall provide a minimum of \$1,000,000 per occurrence. The deductible will not be more than \$25,000 unless prior arrangements are made with Clark County on a case-by-case basis; the criterion is the Proposers liquidity and ability to pay from its own resources. It should be an "Occurrence Form" policy. If the policy is "Claims Made", then Extended Reporting Period Coverage (Tail coverage) shall be purchased for three (3) years after the end of the contract.

G. Loggers Broad Form Liability with a minimum limit of \$1 million orrurrence/aggregate.

H. Umbrella Liability Coverage

Umbrella Coverage in the amount of \$1,000,000 shall be provided and will apply over all liability policies without exception, including Commercial General Liability and Automobile Liability.

I. Additional Insured

Clark County, its officers, employees and agents, will be named on all policies of contractor and any subcontractors as an additional insured, with no restrictions or limitations concerning products and completed operations. This coverage shall be primary coverage and noncontributory to any coverage maintained by Clark County. The contractor shall provide Clark County with verification of insurance and endorsements required by this agreement. Clark County reserves the right to require complete, certified copies of all required insurance policies at any time. All insurance shall be obtained from an insurance company authorized to do business in the State of Washington.

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

	All policies must have a Best's Rating of A-VII or better.
11. Plan Holders List	<p>All proposers are required to be listed on the plan holders list.</p> <ul style="list-style-type: none">✓ Prior to submission of proposal, confirm your organization is on the Plan Holders List below: <p>To view the Plan Holders List, click on the link below or copy and paste into your browser. Clark County RFP site: https://clark.wa.gov/internal-services/purchasing-overview</p> <ul style="list-style-type: none">• If your organization is NOT listed, submit Attachment B - Letter of Interest to ensure your inclusion.• Proposals received by Clark County by proposers not included on the Plan Holders List may be considered non-responsive.

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

Part II Proposal Preparation and Submittal

Section IIA	Pre-Submittal Meeting / Clarification
1. Pre-Submittal Meeting	A pre-submittal meeting is not scheduled for this project.
2. Proposal Clarification	<p>Questions and Requests for Clarification regarding this Request for Proposal must be directed in writing, via email, to the person listed on the cover page.</p> <p>The deadline for submitting such questions/clarifications is April 30, 2025 by 1:30 pm.</p> <p>An addendum will be issued no later than May 7, 2025 to all recorded holders of the RFP if a substantive clarification is in order.</p> <p>The Questions & Answers/Clarifications are available for review at the link below. Each proposer is strongly encouraged to review this document prior to submitting their proposal.</p> <p>Clark County RFP site: https://clark.wa.gov/internal-services/request-proposal-1</p>
Section IIB	Proposal Submission
1. Proposals Due	<p>Sealed proposals must be received no later than the date, time and location specified on the cover of this document.</p> <p>The outside of the envelope/package shall clearly identify:</p> <ol style="list-style-type: none"> 1. RFP Number and; 2. TITLE and; 3. Name and Address of the Proposer. <p>Responses received after submittal time will not be considered and will be returned to the Proposer - unopened.</p> <p>Proposals received with insufficient copies (as noted on the cover of this document) cannot be properly disseminated to the Review Committee and other reviewers for necessary action, therefore, may not be accepted.</p>
2. Proposal	<p>Proposals must be clear, succinct and not exceed eight (8) pages, <u>excluding</u> resumes, coversheet and debarment form. Proposers who submit more than the pages indicated may not have the additional pages of the proposal read or considered.</p> <p>For purposes of review and in the interest of the County, the County encourages the use of submittal materials (i.e. paper, dividers, binders, brochures, etc.) that contain post-consumer recycled content and are <u>readily recyclable</u>.</p> <p>The County discourages the use of materials that cannot be readily recycled such as PVC (vinyl) binders, spiral bindings, and plastic or glossy covers or dividers. Alternative bindings such as reusable/recyclable binding posts, reusable binder clips or binder rings, and recyclable cardboard/paperboard binders are examples of preferable submittal materials.</p>

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

	<p>Proposers are encouraged to print/copy on both sides of a single sheet of paper wherever applicable; if sheets are printed on both sides, it is considered to be two pages. Color is acceptable, but content should not be lost by black-and-white printing or copying.</p> <p>All submittals will be evaluated on the completeness and quality of the content. Only those Proposers providing complete information as required will be considered for evaluation. The ability to follow these instructions demonstrates attention to detail.</p> <p>Additional support documents, such as sales brochures, should not be included with each copy unless otherwise specified.</p>
Section IIC	Proposal Content
1. Cover Sheet	<p>This form is to be used as your proposal Cover Sheet.</p> <p>See Cover Sheet - Attachment A.</p>
2. Project Team	<p>Provide a comprehensive summary of the team structure, which should include both the prime consultant and any subconsultants involved. This summary must feature an organizational chart that clearly delineates the areas of responsibility, expertise, and professional titles of key personnel within the team. It is not necessary to name individual team members, with the exception of the lead roles; however, ensure that the chart accurately reflects the hierarchy and functional roles of all team members.</p> <p>If the team comprises members from different consulting firms, the summary should also highlight any previous collaborations or joint projects undertaken by these firms. This part of the summary is essential to demonstrate the team's ability to work cohesively, leveraging their combined experiences for the benefit of the project. Please ensure that the chart and accompanying descriptions are clear and detailed, providing a thorough understanding of the team's organizational structure and collective capabilities.</p>
3. Management Approach	<p>Please submit a comprehensive resume for each member of the management team, detailing their roles, years of experience, and relevant project work. Additionally, provide a list of all other team members who will be engaged in the project. This list should include their technical expertise, professional titles, years of experience, and contributions to relevant past projects.</p> <p>Further, elaborate on the internal management structure of the team, detailing how coordination and oversight will be handled both within the team and in interactions with county officials, the Department of Natural Resources staff, and others who may be involved in the project. Describe the communication protocols that will be employed to ensure effective collaboration and information flow among all parties.</p> <p>Include a detailed account of the team's experience in managing and delivering project outcomes that involve coordination with similar government agencies. Highlight specific strategies used in past projects to balance competing demands and ensure timely and successful delivery of project objectives. This information will help us assess the team's capability to manage the project effectively.</p>
4. Respondent's Capabilities	<p>Please provide details for up to three (3) reference projects completed within the last five (5) years that showcase your experience and competence in executing the type of work specified in this request. For each project, include the following information:</p>

Request for Proposal #920

Camp Bonneville Forestry Consulting Services

	Project Owner	Name of the organization or individual who owned the project
	Address	Physical location of the project or main office of the project owner
	Contact Information	Telephone number and email address for direct communication
	Project Title	Official title or name of the project
	Contact Person	Name and title of the primary contact person who can provide insights and verify the project details
5. Project Approach and Understanding	<p>Please provide a detailed description of the work to be performed, aligning with the preliminary required services outlined in Section 1B and adhering to the project schedule provided. This description should specifically include:</p> <ul style="list-style-type: none"> • A breakdown of the tasks and activities to be undertaken as part of the project. • The methodologies and approaches planned for each phase of the project. • Key issues and challenges that are anticipated during the project execution. • Additionally, address the potential challenges, including any technical, regulatory, or logistical issues, that might impact the project timeline or outcomes. • Describe the strategies or solutions your team plans to employ to overcome these challenges effectively. <p>This comprehensive overview will help us evaluate your firm's qualifications for the project.</p>	
6. Proposed Cost	Qualifications based selection, do not submit costs.	

Request for Proposal #920
Camp Bonneville Forestry Consulting Services

Part III Proposal Evaluation & Contract Award

Section IIIA	Proposal Review and Selection												
1. Evaluation and Selection:	Proposals received in response to this RFP will be evaluated by a Review Committee. The county plans to conduct interviews as a result of this proposal review and recommendation. If a sufficient number of proposals are received, the county intends to interview a minimum of three (3) consultant teams as part of the final selection process. The interview alone will determine the final consultant selection. Points from this proposal review are not carried over to the interview.												
2. Evaluation Criteria Scoring	<p>Each proposal received in response to the RFP will be objectively evaluated and rated according to a specified point system.</p> <p>A one hundred (100) point system will be used, weighted against the following criteria:</p> <table border="1"> <tr> <td>Proposal Quality (concise, well-organized, accurate)</td><td>10</td></tr> <tr> <td>Project Team (education and experience with emphasis in forestry consulting)</td><td>25</td></tr> <tr> <td>Management Approach (description and references of past performance for quality of work, responsiveness, cost effectiveness and control of budget)</td><td>20</td></tr> <tr> <td>Respondent's Capabilities (products showing requested capabilities with emphasis on areas listed in Section 1B.1)</td><td>25</td></tr> <tr> <td>Project Approach and Understanding</td><td>20</td></tr> <tr> <td>Total Points</td><td>100</td></tr> </table>	Proposal Quality (concise, well-organized, accurate)	10	Project Team (education and experience with emphasis in forestry consulting)	25	Management Approach (description and references of past performance for quality of work, responsiveness, cost effectiveness and control of budget)	20	Respondent's Capabilities (products showing requested capabilities with emphasis on areas listed in Section 1B.1)	25	Project Approach and Understanding	20	Total Points	100
Proposal Quality (concise, well-organized, accurate)	10												
Project Team (education and experience with emphasis in forestry consulting)	25												
Management Approach (description and references of past performance for quality of work, responsiveness, cost effectiveness and control of budget)	20												
Respondent's Capabilities (products showing requested capabilities with emphasis on areas listed in Section 1B.1)	25												
Project Approach and Understanding	20												
Total Points	100												
Section IIIB	Contract Award												
1. Consultant Selection	<p>The County will determine the most qualified proposer based on the evaluation criteria listed using predetermined weights, the attributes of the Proposers and the overall responsiveness of the Proposal. If the County does not reach a favorable agreement with the top Proposer, the County shall terminate negotiations and begin negotiations with the next qualified Proposer. If the County is unable to reach agreeable terms with either Proposer, they may opt to void the RFP and determine next steps.</p> <p>Clark County reserves the right to accept or reject any or all proposals received, to negotiate with any or all prospective contractors on modifications to proposals, to waive formalities, to postpone award, or to cancel in part or in its entirety this RFP. Clark County reserves the right to award the contract based on the best interests of the County.</p>												
2. Contract Development	<p>The proposal and all responses provided by the successful Proposer may become a part of the final contract.</p> <p>The form of contract shall be the County's Contract for Professional Services.</p>												
3. Award Review	The public may view Request for Proposal documents by submitting a public records request at www.clark.wa.gov												

Request for Proposal #920
Camp Bonneville Forestry Consulting Services

4. Orientation/Kick-off Meeting	<p>Contract negotiations are expected to be concluded shortly after the selection process by August 2025. Following the authorization of the contract by the county, Public Works will organize a kick-off meeting. This meeting will include the consultant and county staff in an opportunity to ensure alignment and clarity on the project objectives and timelines.</p> <p>During this meeting, we will outline the project scope, introduce team members, discuss roles and responsibilities, and review the project timeline in detail. This will also be an opportunity to address any initial questions and set the stage for a successful partnership and project execution. Additionally, an on-site orientation meeting and safety briefing will be scheduled.</p>
---------------------------------	--

Request for Proposal #920
Camp Bonneville Forestry Consulting Services

Attachment A: COVER SHEET

General Information:

Legal Name of Proposing Firm	
Street Address	
City State Zip Code	
Contact Person Title	
Phone	
Program Location (if different than above)	
Email Address	
Tax Identification Number	

ADDENDUM:

Proposer shall acknowledge receipt of Addenda by checking the appropriate box(es).

None ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

NOTE: Failure to do so, shall render the proposer non-responsive and therefore be rejected.

I certify that to the best of my knowledge the information contained in this proposal is accurate and complete and that I have the legal authority to commit this agency to a contractual agreement. I realize the final funding for any service is based upon funding levels, and the approval of the Clark County Council and required approvals.

Authorized Signature of Proposing Firm

Date

Printed Name

Title

**Request for Proposal #920
Camp Bonneville Forestry Consulting Services**

Attachment B: LETTER OF INTEREST

Legal Name of Proposing Firm	
Street Address	
City State Zip Code	
Contact Person Title	
Phone	
Program Location (if different than above)	
Email Address	

- All proposers are required to be included on the plan holders list.
- If your organization is NOT listed, submit the ‘Letter of Interest’ to ensure your inclusion.

Email Letter of Interest to: Koni.Odell@clark.wa.gov and Priscilla.Mason@clark.wa.gov

Clark County web link: <https://clark.wa.gov/internal-services/request-proposal-1>

This document will only be used to add a proposer to the plan holders list. Submitting this document does not commit proposer to provide services to Clark County, nor is it required to be submitted with proposal.

Proposals may be considered non-responsive if the Proposer is not listed on the plan holders list.

Request for Proposal #920
Camp Bonneville Forestry Consulting Services

Attachment C



Clark County, Washington

**Certification Regarding
Debarment, Suspension and Other Responsibility Matters**

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State or local department or agency;
- (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Company Name

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

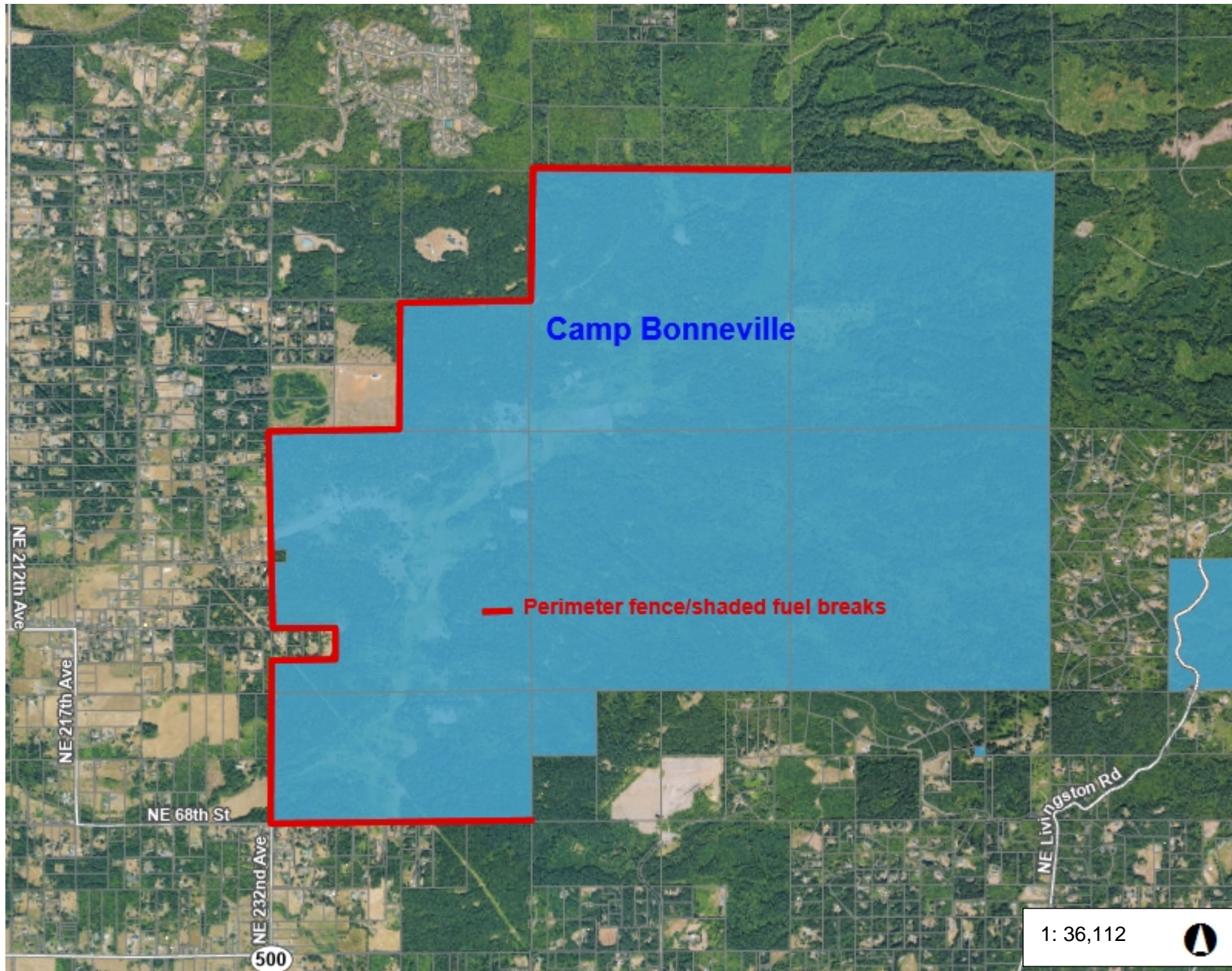
Date

☐

I am unable to certify to the above statements. My explanation is attached.



Exhibit A - 1 Camp Bonneville Shaded Fuel Breaks



Legend

- Taxlots
- Public Land - County
- Major Roads
 - Interstate or State Route
 - Arterial

Notes:

Red line depicts approximately 6 miles of Camp Bonneville perimeter fence. This is the shaded fuel break planning area.

6,018.7 0 3,009.33 6,018.7 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
Clark County, WA. GIS - <http://gis.clark.wa.gov>

This map was generated by Clark County's "MapsOnline" website. Clark County does not warrant the accuracy, reliability or timeliness of any information on this map, and shall not be held liable for losses caused by using this information. Taxlot (i.e., parcel) boundaries cannot be used to determine the location of property lines on the ground.



NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE SPECIFICATION

FUEL BREAK – FORESTLAND

(Ac.)

CODE 383

Fuel Break—NRCS Definition:

A strip or block of land on which the vegetation, debris and detritus have been reduced and/or modified to control or diminish the risk of the spread of fire crossing the strip or block of land.



Figure 1. A fuel break on forest land involves the reduction of flammable fuels, eliminating ladder fuels, and increasing the spacing of residual trees in order to minimize the risk of crown fires.

Purpose

Control and reduce the risk of the spread of fire by treating, removing, or modifying forestland vegetation, debris and detritus.

Conditions Where Practice Applies

This practice applies on all land where protection from wildfire is needed. A fuel break is typically an easily accessible strip of land of varying width (depending on fuel and terrain), where fuel density is reduced, resulting in positive impacts to fire behavior and providing fire control opportunities.

Forestland Protection

This practice is specific to fuel breaks which are applied to forestland including conifer, montane conifer-hardwood, and woodlands/grasslands forest types. Fuel breaks are installed in advance of a fire event in order to protect wildland and wildland urban interface forested landscapes and aid in wildfire suppression. This practice may also be used in Wildland Urban Interface settings for safe ingress/egress access on roads during wildfire events.

Fuel breaks are planned and located at strategic locations on the landscape as part of an integrated system on lands that have an elevated risk of wildfire. They break up large, continuous tracts of dense natural fuels, thus limiting the uncontrolled spread of wildfire. They are commonly associated with fire

breaks (permanent or temporary strips of bare or vegetated land planned to retard fire, or other features such as roads).

Fuel breaks aid in firefighting efforts by slowing fire spread, and by providing an area of less extreme fire behavior from which other actions (e.g., back burns) are taken. However, under extreme conditions even properly designed fuel breaks cannot significantly reduce fire behavior in the event of large, rapidly spreading wildfires, regardless of the efforts of firefighters.

A “shaded” fuel break is commonly applied on strategic locations within larger forested areas. Shaded fuel breaks have lower fuel loads relative to areas outside of the fuel break, and the shade provided by the canopy improves the microclimate conditions of the underlying fuels.

Fuel breaks typical have well-spaced, large sized “dominate” trees; a low number of trees per acre (e.g. 50 trees/acre - < 100 sq. ft. of basal area); few understory smaller trees; high “height to live crown” distance; less than 10 % cover of brush arranged in isolated groups; and low levels of snags and down logs.

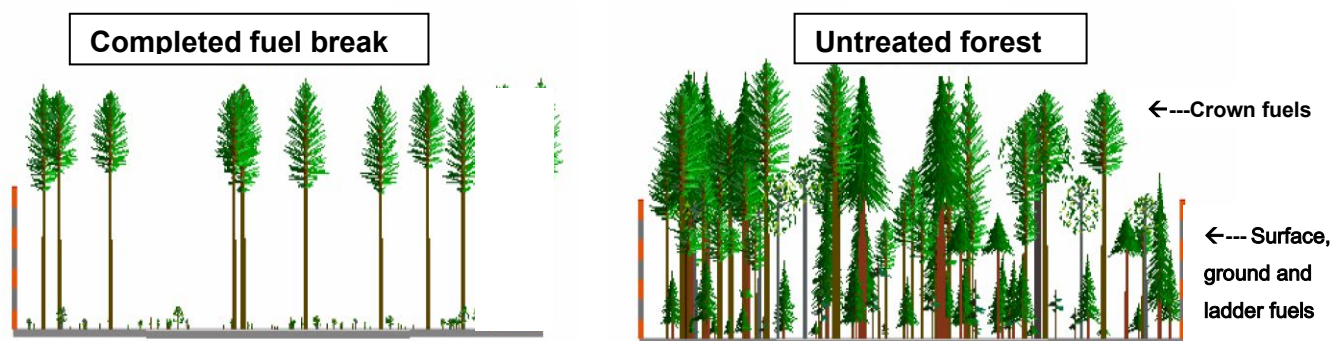


Figure 2. (Right) A typical fuel stratum for forest stands in California prior to fuel break installation. Fire behavior is a function of various inter-related elements including density of tree crown vegetation, smaller tree and brush “ladder” fuels, and ground surface vegetative debris. (Left) A completed fuel break

General guidance

The primary goal of this practice is to significantly alter (modify) fire behavior within the treated area.

This specification is designed to achieve different results from those expected from pre-commercial thinning, applied under NRCS practice 666 (Forest Stand Improvement). Although thinning can produce positive benefits in fuel reduction, the primary purpose of the Forest Stand Improvement as applied by NRCS is to address forest health, productivity and other closely related resource concerns. The post-treated structural attributes of a thinned stand are not exactly the same as those of a fuel break. In many cases thinning operations will not adequately address surface or ladder fuels, and will not increase the distance to the base of the live crown. Silviculturally thinned stands usually have less crown separation. However, the effectiveness of an applied fuel break will be enhanced when it is located adjacent to a properly thinned stand.

Crown fires (those that rapidly spread from tree to tree) pose the greatest danger to human and ecological values. For that reason, decreasing the overall risk of a rapidly spreading crown fires is the principal objective of the fuel break. The risk of crown fires will be minimized by actions which:

- Reduce surface fuels (grasses, forbs and small brush) – complete treatment/disposal of dead woody debris and slash necessary.
- Increase the height of the base of the live crown of the overstory retention trees
- Reduce ladder fuels (small trees and larger brush species)

- Reduce the continuity of the forest canopy (tree to tree), and
- Reduce the crown bulk density of the canopy.

While some fuel breaks have little to no post treatment vegetation, this CPS 383 requires creation of a “shaded fuel break” (one that retains a degree of canopy cover). This is preferable because of the temperature and relative humidity moderation that shading provides to the surface fuels and can provide some suppression of rapidly resprouting vegetation following the initial site clearing. In addition, any degree of crown retention provides additional benefits in retaining wildlife and aesthetic values within the forested landscape.

The design of fuel breaks varies in width according to numerous factors such as on-site and adjacent fuel loads, topography (both positive and negative attributes), proximity to roads and anchor points, and other factors. There are no absolute standards for fuel break construction, but design must meet minimum criteria in the 383 Practice Standard. When possible, each situation needs to be tailored to the risk and complexity of expected wildfire and assets at risk when considering terrain, fuels, historic fire regimes, expected occurrence, and the predictable weather and fuel conditions that may be present during a wildfire.

Fuel break widths applied in the United States vary from less than 100 up to 1,000 feet. When possible, a wildland fire fuels specialist or Area Forester with wildfire prevention planning experience should be consulted for designing the width based on the above factors and local site considerations. In this specification widths are therefore presented as general guidelines, especially maximum width guidelines.

Specifications

Fuel breaks shall comply with the following items, and any additional specifications based on purpose(s) and requirements listed for environmental protection and those for facilitating practices (pruning, slash treatment, burning etc.).

Purpose

Implementation Requirements sheets shall identify the purpose for protection, the type of fuel break (road, ridgeline etc.), provide a brief explanation of what is being protected, why it is being protected, and where the protection is needed. Include a map of location and sketch of design of fuel break.

Fuel break siting/location

1. When available, refer to local fire protection plans for information on locations and specifications of fuel breaks. Ideally, installation of fuel breaks should be done when fire service agencies, local community wildfire protection or other local fire safe planning efforts have identified the area as strategic need for a fuel break system.
2. Locate all potential ignition sources that could create hazardous or catastrophic fires. These sources may include public roads, railroads, urban developments, recreation sites, utilities, etc.
3. Locate fuel break(s) between the potential ignition source and the resources/structures to be protected and as close as feasible to the ignition source. Favor locations for fuel break(s) that are on strategic ridgelines for fire suppression control, at the bottoms of canyons leading up to saddles to reduce the risk of fires moving upslope (chimney effect), roads, and other critical public safety infrastructure.
4. Connect fuel break(s) to natural or artificial fire barriers such as rivers, creeks, large rock outcrops, wet meadows, roads, or areas with low fuel loads/cover or flammability such as

existing adjacent fuel break. Favor locations that are linked to road systems to facilitate fire-fighting access.

5. Generally, fuel breaks should not be located on midslope areas or along arbitrary property line boundaries that do not comport with strategic fuels or fire suppression control areas.
6. Often terrain limits the location and dimension of the fuel break. For safety purposes and to protect site resources, treatment methods involving equipment are generally not applied on slopes exceeding 35 percent.
7. Feather the edges of the fuel break(s) as feasible into the adjacent protected areas for aesthetic purposes.

Fuel break Dimensions

Ridges

1. The dimensions of the fuel break (width and length) shall be sufficient to reduce fire spread and intensity with consideration given to the assets being protected by the fuel break.
2. Width on level ground should be 2 ½ times the height of the average codominant tree or brush species vegetation or a minimum of 200 feet. Add 10 feet to the width for every 10 percent increase in slope (e.g., for a 50% slope 200 ft + 50 ft = 250 feet total width).
3. When terrain or other factor limits the width, the minimum fuel break width must be at least 100 feet. Use Practices CPS 666, 384, 660, and 490 (for hand chemical post installation resprout control) when narrower width “fuel breaks” are installed due width limitations.
4. Where slopes are less than 20%, the maximum width of the fuel break will generally not exceed 300 feet unless warranted by specific on-site conditions. Wider fuel break are allowable when conditions and assets at risk justify the widened area.



Figure 3: Ridgeline fuel breaks (left) *Photo from El Dorado County and Georgetown Divide RCD.* (right) *University of California ANR*

Roads

Apply roadside fuel breaks may along county roads or private roads at an effective minimum width of $2\frac{1}{2}$ times the height of the average codominant tree or brush species vegetation or a minimum of 200 feet. Add 10 feet to the width for every 10 percent increase in slope (e.g., for a 50% slope $200\text{ ft} + 50\text{ ft} = 250\text{ feet total width}$), on level ground. Ideally, roadside fuel break widths are installed evenly on each side of the road (i.e. 100 feet side of road).

Use Practices CPS 666, 384, 660, and 490 (for hand chemical post installation resprout control) when narrower width “fuel breaks” are installed due width limitations. Fuel breaks applied along roads provide enhanced protection due to the minimal fuel levels associated with roads. Roads also allow fire suppression crews quick access to the fuel break, and the road can be used as an anchor point for a back burn. Figures 4 & 5 provides visual examples of a fuel break established in conjunction with a road.

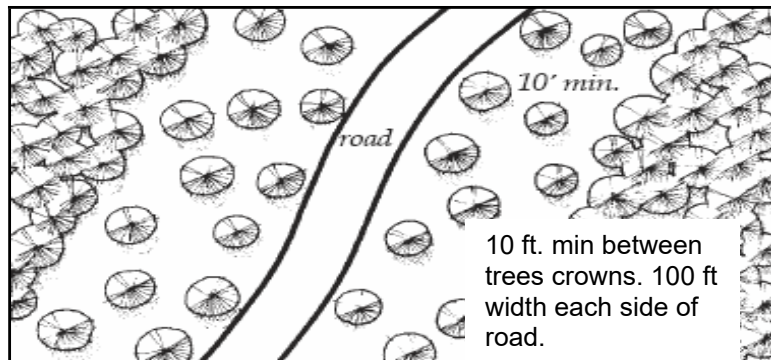


Figure 4: Aerial plan view of a road buffered by a fuel break.

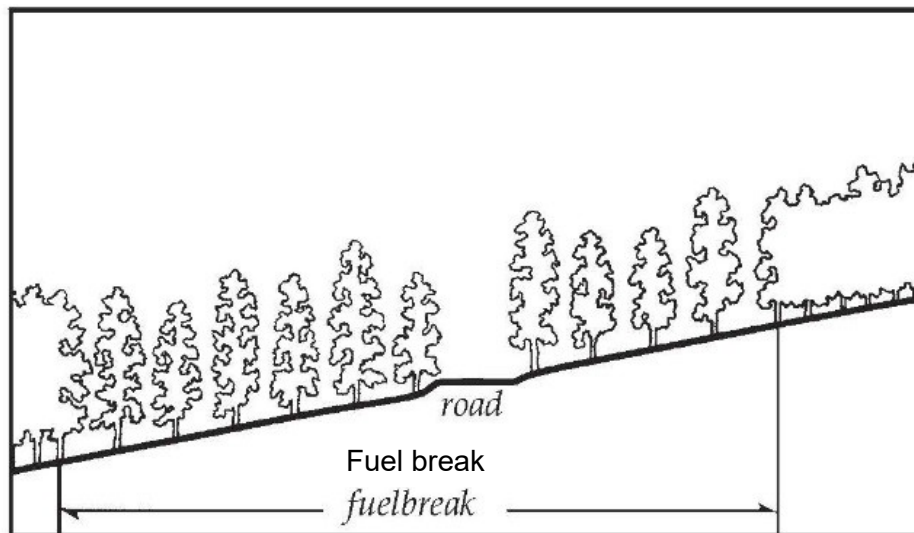


Figure 5: Cross sectional view of a fuel break established on both sides of a road (Images are from “Fuel break Guidelines for Forested Subdivisions and Communities”, Colorado State University)

Vegetation Treatment Specification

1. Reduce or modify the existing fuel load (live vegetation and debris) to diminish the risk and/or rate of the spread of fire crossing the strip or block of land. Vegetation treatments shall focus on treating/removing fuels in all vegetative layers including tree crowns, understory trees and brush, and dead and down surface fuels or live ground cover. Focus on substantial vegetative removal and debris clean-up.
2. Vegetation treatment shall create both horizontal space and vertical space between retained vegetation.

3. Maximum Tree size removal: The maximum size live tree to be removed is 12 inches DBH. Dead/dying trees have no diameter size limit.

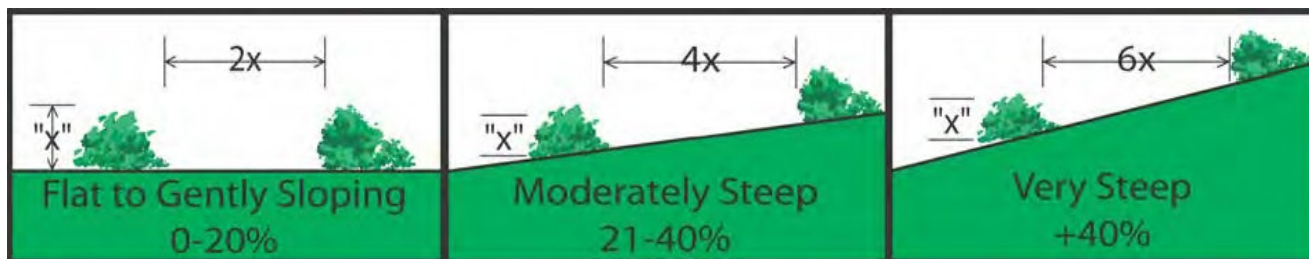
Larger size live trees may be needed to be removed to effectively create a fuel break. When forest stand conditions necessitate removal of > 12-inch DBH tree, clients should be advised to obtain a commercial tree harvesting permit to remove the larger trees. Commercial tree removal operations should be completed and approved by CAL FIRE prior to implementation of the EQIP fuel break project.

4. Thin trees and brush to spacing standards shown below in Figure 6. Small, isolated clusters or groups of trees can be left for visual diversity or for wildlife value. State in the IR the target post treatment level of brush cover. Generally, brush cover should be less than 20% cover. Wider spacing of vegetation can be included when fire hazard and assets at risk warrant less standing vegetation.

Figure 6:

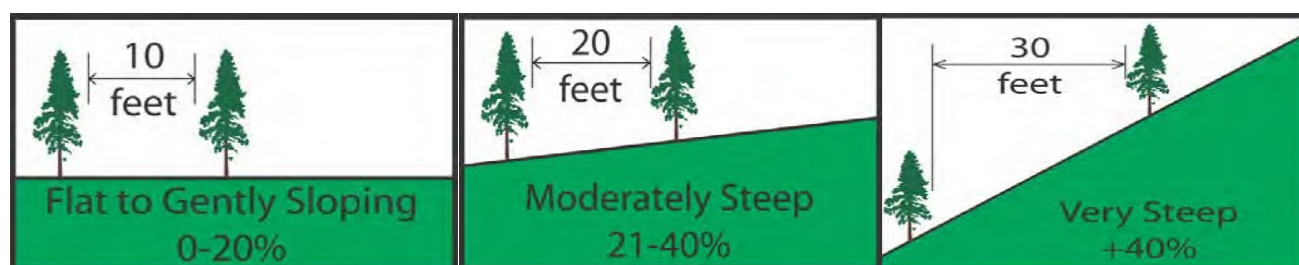
SHRUBS AND SMALL TREES (<15 ft tall): HORIZONTAL SEPARATION DISTANCES

Separation distances are measured between canopies (outer most branches) and not between trunks. Separation can be between individual shrubs/small trees or groups of shrubs/small trees.



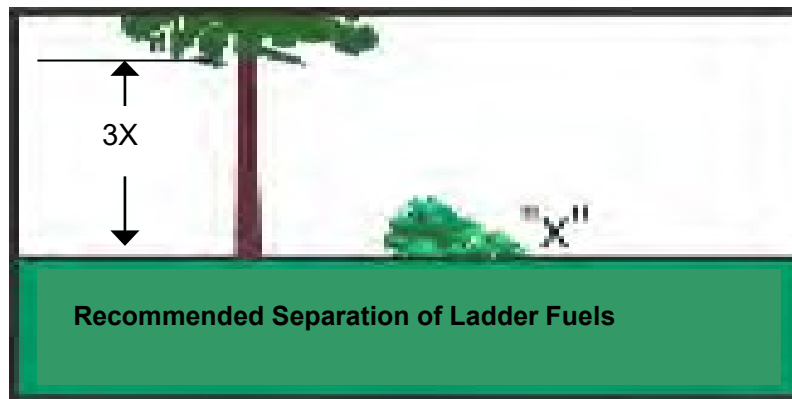
LARGER TREES: HORIZONTAL SEPARATION DISTANCES BETWEEN TREE CANOPIES

For forested areas, the recommended amount of separation between tree canopies is determined by steepness of slope. Crown separation can be between individual trees or groups of trees.



VERTICAL SEPARATION DISTANCES NEEDED BETWEEN FUEL LAYERS

Removal of ladder fuels is the most critical feature of a fuel break. Remove shrubs and small trees within the drip line of trees when sufficient space cannot be created between the tree crown and top of shrub/small trees. Pruning residual trees will also contribute to creating vertical separation of fuels.



Species composition to be favored for retention

Tree species differ in their ability to withstand wildfire. Select trees to retain that are more adapted and fire resistant to the local setting.

Table 1. Resistance of mature trees to fire damage and mortality, in order of decreasing resistance

Coastal species	Interior species
coast redwood, tanoak	ponderosa and Jeffrey pine, Douglas-fir
Douglas-fir	sugar pine, white fir, grand fir
grand fir, white fir	incense cedar
mountain hemlock	western white pine
noble fir	lodgepole pine, western hemlock
western white pine	canyon live oak
lodgepole pine	black oak
western hemlock	
Sitka spruce, western red cedar	

Source: D. Minore, Comparative autecological characteristics of northwestern tree species: A literature review. USDA Forest Service PNW Research Station Gen. Tech. Rep. PNW-87 (1979), p. 39; Forest Service Web site, http://www.fs.fed.us/pnw/pubs/journals/pnw_1979_minore001.pdf.

Prioritize removal of highly flammable shrubs.¹ After treatment retain a cover of low-growing forbs and perennial grasses for easy fire control on fuel breaks. For shrubs select species for ground cover that have low heights and contain low level of dead material.

Vegetation Treatment Methods

Implementation Requirements shall specify vegetation treatment method.

1. Vegetation treatment methods shall use techniques according to specification set forth in CPS 666 Forest Stand Improvement for tree/brush thinning, CPS 660 for pruning limbs of residual trees, CPS 384 for dispose of treated woody debris, and CPS 490 Tree Shrub Site Preparation for post treatment resprouting vegetation control.

¹ Flammability of any species is determined by moisture levels, and by the chemical composition and density of the individual species.

2. Chipping and masticating of thinned trees and shrubs is the preferred method for thinning and woody debris disposal. Lop and scatter slash treatment is generally not used for fuel breaks due to the need for low levels of hazardous vegetative fuels following treatments. Areas with low vegetative tonage (less than approximately 2 ton/ac.) may include lop and scatter.



Figure 7 - Mastication equipment grinds vegetation into small debris creating a fire safe fuel profile, organic material for soil health improvement, and avoids burning debris and the associated air quality, fire hazard and pest breeding issues.

Use of straight blade dozers and brush rakes are another treatment option. It can be useful for uprooting vegetation such as live oak that is susceptible to aggressive resprouting. But such methods can create substantial soil disturbance and environmental protection measures should be taken on soils and slopes that are susceptible to erosion and compaction. Mitigations/design features to reduce the soil disturbance impacts include max slope limitations for brush rake use; use of hand treatments on steeper portions of fuel break, retention of isolated vegetation groups to help filter interpret soil erosion, situating down logs on the contour to act as erosion barriers.

Remove all standing dead trees and shrubs except for a limited number of large, dead trees (snags >15" diameter- at-breast-height or larger) that may be retained for wildlife use. Low height snags, less than 20 ft in height, generally do not present a lightening fire ignition source.

3. Remove all downed dead trees and shrubs within the zone if they are solid (not rotten) and are not yet embedded into the ground. Downed trees that are embedded into soil and which cannot be removed without soil disturbance will be left in place.

Facilitating Practices

Most NRCS-CA CPS 383 Practice Scenarios contain cost components to cover costs associated with implementing facilitating practices to complete the fuel break. **Facilitating practices generally should not be included as a payment item in the contract.** Cutting trees, slash treatment, pruning and other necessary vegetative treatments must be implemented as part of the CPS 383, and are not included as separate payment items.

Additional General Requirements

Permitting and Environmental compliance

All activities associated with applying this practice shall comply with federal, state, tribal and local forestry and related laws and regulations. It is the landowner's responsibility to obtain appropriate permits and/or applications prior to commencing an activity. Typical permits that may be needed include slash burning/air quality, commercial harvesting permit from CAL FIRE when cut vegetation is used for commercial purposes, Pesticide Control Advisors Report when herbicides are applied, archeological protection review, and wildlife, threatened, endangered, sensitive species (TES) protection waivers.

Compliance with State fire protection statutes (Public Resource Code 4427) is required regarding equipment needed during open burning (sharp point shovel and fire extinguisher etc.) and fire

suppression tools when operating internal combustion (Public Resource Code 4428). Advise clients to contact local CAL FIRE Office for information. Also, CAL FIRE will advise on periods of no/curtailed operations of equipment use and post operations fire patrols during extreme fire conditions such as Red Flag Warnings or Fire Weather Watch when issued by the National Weather Service.

Watercourse and Meadow Protection Standards

The IR shall include information on watercourses, riparian areas, wetlands, including a map, in the project area.

Protection measures/treatment limitations must be provided when the project affects any Class I or II perennial watercourses, or Class III seasonal/intermittent watercourses². Refer to the Table 1 below for watercourse protection zones in non-anadromous water bodies. If slopes are greater than 40%, the buffer will extend to the topographic break above the stream. All watercourse riparian stream buffer areas exclude entry by heavy equipment, except at existing crossing or designated locations.

Vegetation treatment and heavy equipment is generally excluded in watercourse buffer zones, particularly in remote areas that are not associated with WUI areas or presence of public safety infrastructure. These exclusions are needed to continue large snag/wood recruitment and avoid impacts to species that utilize aquatic and riparian areas such as fish, red-legged and yellow-legged frogs, Pacific fisher, and great gray owl.

Table 1 – Protection measures/treatment limitations for watercourse protection zones (Buffer Zones)

	Class 1 wet	Class II wet	Class III dry	Class III wet	Wet meadow
Work Exclusion Zone (from channel edge or edge of meadow)	25 ft.	25 ft.	None	25 ft.	100 ft.
Heavy Equipment Exclusion Zone (Hand work only)	75 ft.	25 ft.	25 ft.	25 ft.	N/A
Total Buffer for Limited Work	100 ft.	50 ft.	25 ft.	50 ft.	100 ft.

Vegetative treatments and equipment entry within watercourse buffer zones can be included when an assessment is made that the buffer treatment is needed to protect human life, structures, or public safety or commercial infrastructure assets that are at risk to damage from wildfires. Vegetative treatments and equipment entry to address post wildfire and insect mortality resource concerns can also be included following an assessment and consultation with a NRCS biologist. Contact a NRCS biologist early in the planning process if working in the buffer zones. Consultations may be required with USFWS, NOAA Fisheries, or other state or federal regulatory agencies (i.e. Lake, Streambed Alteration Permit, 401 Water Quality Certification, 404 Clean Water Act.)

Forest management operations outside the watercourse buffer zones will ensure tree falling and other operations will not fell trees into buffer zones so that no part of the tree enters buffer. Slash will not be placed, piled or burned in any watercourse channel, buffer zone, or ephemeral drainage carrying seasonal runoff. Additional operating restrictions around ponds will apply, contact below NRCS Biologist for specification.

² See California Forest Practices rules section 14 CCR 895.1

Migratory and Threatened, Endangered or Sensitive Species (TES) Birds and Other Species

Project activities will not commence until a biologist concurrence is received.

Migratory Birds: Work will not occur during the migratory bird nesting season unless an assessment is conducted to determine active nesting or breeding behavior. Assessments will be completed by NRCS staff persons knowledge on migratory birds. Assessments shall be conducted within ten days prior to the start of work. The nesting season varies by region. Below are the nesting season dates by region. Refer to Technical Note TN-Biology-CA-23 for complete information on measures to minimize disturbance migratory birds.

Generally, projects less than 10 acres in size are not required to conduct migratory bird assessments, as well as projects implemented after July 15. These projects are not expected to have migratory bird population level adverse effects. Consider conducting surveys on <10-acre projects when they are adjacent to other areas planned for treatment in the same year.

TES: No known threatened, endangered, sensitive (TES) or rare plants or animals, including migratory birds, will be disturbed or harmed. Measures to avoid disturbance to TES may be required if known species are present or suitable habitat is found on-site in areas accessible to TES. In consultation with NRCS Biologist, develop a project alternative that avoids or minimizes these potential effects. Avoidance and/or minimization measures may include:

- Buffer zones around nests and dens,
- Limitations to types of equipment and/or times used,
- Limited operating periods,
- TES monitoring prior to or during activities,
- Additional snag and downlog retention.
- Any requirements when provided from ESA consultation with USFWS, NOAA Fisheries, or requirements of a state or federal permit (i.e. Lake, Streambed Alteration Permit, 401 Water Quality Certification, 404 Clean Water Act.)

Archeology

No operations may begin until archeological clearance is provided by NRCS. No operations in known archeology or historical sites.

Pest Control

1. **Pine Beetle Infestations:** In areas with bark beetle, piles containing green material will be burned within 2 months if conditions permit. If residues are green and cannot be burned within 2 months of pile creation, it will remain scattered on the ground until a burn window is available. Slash must be piled or chipped before practice can be certified.
2. **Sudden Oak Death and Goldspotted Oak Borer** In areas with known infections of pathogen or insects, specific sanitation precaution will be implement including no transport of woody outside the State Designated Zone of Infestation, covering vegetative debris moved by vehicles, and equipment sanitization measures.

See: BMP for SOD: <http://www.suddenoakdeath.org/wp-content/uploads/2014/12/forestry-08-10-with-new-2014-map.pdf>

Goldspotted Oak Borer: <http://ipm.ucanr.edu/PMG/PESTNOTES/pn74163.html>

Maintaining Soil Quality/ Soil Health

All operations will be planned and executed in a manner that maintains or improves soil quality. This includes using machinery that minimizes compaction, displacement, rutting and other disturbances to the forest floor. Surface organic material will be retained or improved throughout the treatment process.

Soils, site factors, and timing of application must be suitable for any ground-based equipment utilized for creating a fuel break to avoid excessive compaction, rutting, or damage to the soil surface layer.

Operation and Maintenance

- A maintenance plan will be prepared which shall list various items that are to be inspected and follow-up work to be conducted.
- Treating resprouting ground and surface fuels is the most important factor to ensuring fuel break effectiveness.
- Treat or graze vegetative fuel breaks to avoid a build-up of excess litter and to control noxious and invasive plants.
- The more open the overstory following fuel break construction, the more maintenance will be required.
- Unshaded openings that are created will encourage establishment and growth of understory vegetation.
- Fuel breaks should be inspected annually.
- Maintenance of the fuel break must be conducted at least every three to five years, to the following specifications:
 - a. Treat (mow, spray, browse) or graze vegetative fuel breaks to avoid a build-up of excess litter and to control unwanted vegetation. Continuous areas of resprouting vegetation greater than 18 inches in height should be controlled.
 - b. Remove lower tree and/or shrub branches that have died and stumps that pose a fire hazard.
 - c. Properly dispose of slash created by maintenance.
 - d. Inspect all fuel breaks for woody materials such as dead limbs or blown down trees and remove them as necessary to maintain the desired level of fire spread risk. Downed woody material >2 inches in diameter be disposed of or treated.
- Repair erosion control measures as necessary to ensure proper function.
- Access by vehicles or people will be controlled to prevent damage to the fuel break.
- Maintain the functionality of the original design throughout the life of the practice.

-

REFERENCES AND FURTHER READING

- Agee, James K.; Bahro, Berni; Finney, Mark A.; Omi, Philip N.; Sapsis, David B.; Skinner, Carl N.; van Wagendonk, Jan W.; Weatherspoon, Phillip C. The use of shaded fuel breaks in landscape fire management. 2000. *Forest Ecology and Management* 127, pages 55-66.
- Baldwin, K. 2005. "Report on a Literature Search Pertaining to Fuel breaks and Fire Behavior for NRCS".
- Bennett, Max; Fitzgerald, Stephen; Parker, Bob; Main, Marty; Perleberg, Andy; Schnepf, Chris; Mahoney, Ron. 2010. Reducing Fire Risk on Your Forest Property. PNW 618.
- California Oak Mortality Task Force. 2014. Sudden Oak Death Guidelines for Forestry. <http://www.suddenoakdeath.org/wp-content/uploads/2014/12/forestry-08-10-with-new-2014-map.pdf>
- Fuel Break Guidelines for Forested Subdivisions and Communities, Colorado State Forest Service, July 2005.
- Fuel Breaks and Other Fuel Modification for Wildland Fire Control. 1977. USFS Pacific Southwest Forest and Range Experiment Station. https://www.fs.fed.us/psw/publications/documents/usda_series/usda_ah499.pdf
- Fuel break effectiveness: state of the knowledge. 2007. Wildland Fire Operations Research Group, FP Innovations (FERIC). Alberta, Canada
- Graham, Russel; Jain, Theresa. 2010. Fuel Management in Forests of the Inland West, in *Cumulative Watershed Effects of Fuel Management in the Western States*, Chapter 3. USDA Forest Service RMRS-GTR-231.
- Graham, Russell T.; Jain, Theresa B.; Loseke, Mark. 2009. Fuel treatments, fire suppression, and their interaction with wildfire and its impacts: the Warm Lake experience during the Cascade Complex of wildfires in central Idaho, 2007. Gen. Tech. Rep. RMRS- GTR-229. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 36 p.
- Graham, Russell T.; McCaffrey, Sarah; Jain, Theresa B. (tech. eds.) 2004. Science basis for changing forest structure to modify wildfire behavior and severity. Gen. Tech. Rep. RMRS-GTR-120. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 43 p.
- Peterson, David L.; Johnson, Morris C.; Agee, James K.; Jain, Theresa B.; McKenzie, Donald; Reinhardt, Elizabeth D. 2005. Forest structure and fire hazard in dry forests of the Western United States. Gen. Tech. Rep. PNW-GTR-628. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 30 p.
- Schnepf, Chris; Graham, Russell T.; Kegley, Sandy; Jain, Therese B. 2009. Managing Organic Debris for Forest Health, Reconciling fire hazard, bark beetles, wildlife, and forest nutrition needs. Pacific Northwest Extension PNW 609. University of Idaho, Oregon State University and Washington State University. 66 p.
- University of California Agriculture and Natural Resource Publication 8245. Wildfire and Fuels Management. <https://anrcatalog.ucanr.edu/pdf/8245.pdf>
- University of California Integrated Pest Management. Goldspotted Oak Borer. <http://ipm.ucanr.edu/PMG/PESTNOTES/pn74163.html>