



US Army Corps
of Engineers

Minor Forest Products Sale

Location: Clarence Cannon Dam and Mark Twain Lake

Invitation for Bid Number: DACW43-9-22-001

Bidding Period: October 15, 2021 – November 15, 2021

Bid Opening Date: November 16, 2021, 10:00 AM

Bid Opening Location: Frank Russell Recreation Area Maintenance Building, 43426

Frank Russell, Monroe City, MO 63456

Sale Type: Lump-Sum Sale of Three Timber Areas

Sale Areas (See Exhibits):

- **John S. Spalding Recreation Area**
Northern ½ of Section 15, Township 55 North, Range 7 West
- **Joanna Trail**
Northwestern ¼ of Section 14, Township 55 North, Range 7 West
- **Warren G. (See Spillway Recreation Area)**
Northwestern ¼ of Section 14, Township 55 North, Range 7 West

Site Visit: October 28, 2021, 9:00 AM. Interested parties will meet at the Frank

Russell Recreation Area Maintenance Building, 43426 Frank Russell, Monroe City, MO

63456. For more information, please contact Allen Mehrer with the Mark Twain Lake

Project Office at 573-735-4097.



Minor Forest Products Sale
Clarence Cannon Dam and Mark Twain Lake

BID SHEET

I, _____, submit a consolidated bid of
\$_____ for the three identified timber areas (John S. Spalding Recreation
Area, Joanna Trail, and Warren G.). The timber is located on U.S. Army Corps of
Engineers property at Clarence Cannon Dam and Mark Twain Lake, Monroe City,
Missouri. If I am found to be the most successful bidder who is also found fully
responsive, I understand the timber shall be harvested in accordance with the terms,
conditions, and requirements set forth in this Invitation for Bid No. DACW43-9-22-001.

Name: _____

Address: _____

Telephone: _____

Authorized Signature: _____

Date: _____

CERTIFICATE OF CORPORATE BIDDER

I, _____(name), certify that I am the
_____(position), of the corporation named as bidder
herein; that _____(name) who signed this bid on behalf of the
bidder was then the _____(position) of said corporation; that
said bid was duly signed for and on behalf of said corporation by authority of its governing
body and is within the scope of its corporate powers.

BY:

AFFIX	_____
CORPORATE	NAME
SEAL	_____
	TITLE

CERTIFICATE AS TO SMALL BUSINESS STATUS

The bidder certifies that he/she (is) (is not) a small business concern within the terms of the following definition: In sales of Army forest timber a "small business" is a concern that: (1) is primarily engaged in the logging or forest products industry; (2) is independently owned and operated; (3) is not dominant in its field of operation; and (4) together with its affiliates does not employ more than 500 persons.

(From 13 CFR 121.3-9 b), Rev. 29

Rev. 29 Fed. Reg. 2988, 5 Mar 64)

Date

Signature of Bidder

Intentional falsification of this certificate is a criminal offense punishable by a fine of not more than \$5,000 or by imprisonment for not more than two years, or both. (Title 15, United States Code, Section 645 (a)).

INSTRUCTIONS: This certificate must be attached to and is a part of every Invitation for Bid on the sale of Army timber with an estimated value of \$2,000 or more. Failure to properly execute this certificate will not invalidate a bid, but a proper statement must be signed before the bid is accepted by the Government. Refusal or delay in executing a proper statement is grounds for rejecting the bid.

SECTION I – MINOR FOREST PRODUCT SALE
Clarence Cannon Dam and Mark Twain Lake

1. **General.** This sale shall harvest timber damaged during a windstorm in July 2021. The timber is located in three areas: John S. Spalding Recreation Area, Joanna Trail, and Warren G. Reference attached Exhibits for exact locations.
2. **Person's Excluded from Bidding.** Officers and enlisted personnel of Armed Forces on active duty, civilian employees of the military establishment, and immediate members of their households, dependents, or agents will be excluded from the field of bidders, and bids from such persons will not be accepted or considered.
3. **Knowledge of Sale Terms and Conditions.** All bids submitted shall be deemed to have been made with full knowledge of all the terms, conditions, and requirements herein contained. Any oral statement or representation by a representative of the Government, changing or supplementing any condition of this advertisement or contract resulting therefrom is unauthorized and shall confer no right upon the bidder or purchaser.
4. **Forest Product Inspection.** The bidders are invited, urged, and cautioned to inspect the timber to be sold prior to submitting a bid. A site visit date and time is specified on the cover sheet of this Invitation for Bid. In no case will failure to inspect constitute grounds for the withdrawal of a bid after opening. Reference attached Exhibits for forest product type, estimated volume, and location.
5. **Forest Product Condition.** Timber is offered for sale "as is" and "where is" with the successful bidder being obligated and responsible to provide at their sole expense and without any cost whatsoever to the Government all labor, equipment, materials, and supplies required to harvest and remove the forest products involved. The description of the property is believed to be sufficiently specific for purposes of identification. Any error or omission in the description (including location) shall not constitute any ground or reason for nonperformance of the contract or claim by the successful bidder for any allowance, refund or deduction from the amounts offered. The Government does not make any guarantee or warranty expressed or implied with respect to the property as to quantity, quality, character, or condition, size or kind, or that the property is in condition or fit to be used for the purpose for which intended. The purchaser (successful bidder) acknowledges that they have satisfied themselves as to the location, field conditions, and volume of forest products to be removed from the designated areas. This contract shall be construed to have the intent of covering all the designated forest products of the specified species and sizes on the area as described herein and shall include all such forest products whether less than, equal to, or in excess of the estimated volume or quantity stated.
6. **Bid Items.** All submitted bids will be considered as the lump-sum bid for the three available timber areas. Bids for individual areas will not be allowed or accepted. If

an individual bids for a specific area, this bid will be considered not fully responsive and removed from competition. This Invitation for Bid and subsequent contract is for all three timber areas or none.

7. **Bid Forms.** Sealed bids must be executed and submitted on the Bid Sheet found on page 2 of this Invitation for Bid and include pages 3 and 4, Certificate of Corporate Bidder and Certificate as to Small Business Status respectively. Bids shall be filled out in ink or typed. Additional copies of the bid may be obtained from the Real Estate Contracting Officer (RECO) upon request. Bids shall be delivered to the following address prior to the bid opening specified on the cover sheet. **Due to COVID-19 protocols, bids will not be accepted via hand delivery (except in unique circumstances, such as equal offers at bid opening).** It is the responsibility of the bidder to ensure the submitted bid is delivered to the cited address with the required bid forms.

Sealed bids (pages 2-4) shall be submitted in a **double sealed envelope** addressed to:

**U.S. Army Corps of Engineers
Attn: Allen Mehrer
Clarence Cannon Dam & Mark Twain Lake
20642 Hwy J
Monroe City, MO 63456**

And plainly marked in the lowest left-hand corner of the envelope as follows:

**Attn: Real Estate Division
BID FOR TIMBER – Invitation for Bid No. DACW43-9-22-001
TO BE OPENED – November 16, 2021, 10:00 AM**

FAILURE TO PROPERLY ADDRESS AND IDENTIFY SEALED BID MAY RESULT IN FORFEITURE OF BID.

8. **Delivery of Bids.** It will be the duty of each bidder to see that their bid is delivered by the time and at the place prescribed in this Invitation for Bid. Bids received prior to the time of opening will be securely kept, unopened. The person whose duty it is to open them will decide when the specified time has arrived, and no bid or modifications of a bid, or withdrawals of a bid thereafter, will be considered, except those received before award is made and is either (1) sent by registered or certified mail at least 5 calendar days before the specified receipt date, through the U.S. Postal Services to the specified address; or (2) sent by Express Mail Next Day Service of the U.S. Postal Service not later than 5:00 p.m. at the place of mailing, 2 working days before the specified bid receipt date to the specified address. No responsibility will be attached for the premature opening of a bid not properly addressed and identified. All modifications of a bid or withdrawals of a bid must be in writing. Telegraphic bids will not be considered, but modifications or withdrawals,

by telegraph, of bids already submitted will be considered, if received prior to the time set for opening bids.

9. Bid Payment/Deposit. The purchase price of the Minor Forest Product Sale shall be paid in the following manner:

- a. **Bid Deposit.** Bidder will pay a **bid deposit of 20%** of the submitted bid price to secure award of the sale contract. Payment methods accepted include certified check or postal money order made payable to the Finance and Accounting Officer, U.S. Army Corps of Engineers, St. Louis District. **The remaining 80% payment balance will be due within 30 days after award or when, determined by the Mark Twain Lake Project Office, 33% (1/3rd) of the harvest is completed, whichever occurs first.**

10. Opening of Bids. At the time set for the opening of bids, their contents will be made public by announcement for the information of bidders and others properly interested, who may be present, either in-person or by representatives; provided, however, that any information submitted in support thereof, the disclosure of which may tend to subject the person submitting it to competitive business disadvantage, will upon request be held in strict confidence by the Government.

11. Basis for Award.

- a. The responsible bidder whose bid, conforming to this Invitation for Bid, is most advantageous to the Government, price and other factors considered, will be notified (via Notification of Intent to Award) that an award (ENG Form 4804, Minor Forest Products Sales Contract) will be made to them upon payment of the Bid Payment/Deposit as specified in Condition 9. Bid Payment/Deposit. If the Bid Payment/Deposit is not paid within the specified period, the Government may, at its option, select from the remaining bids the responsible bidder whose bid, conforming to this Invitation for Bid, is most advantageous to the Government, price and other factors considered. This process will be repeated until a successful bidder is determined. The Government may, when in its interest, reject any or all bids or waive any informality in bids received.
- b. In the absence of information clearly indicating that the bidder is responsible, the Real Estate Contracting Officer (RECO) shall conclude that the bidder does not qualify as a responsible bidder. To determine a bidder to be responsible, the RECO must find that:
 - i. The bidder has adequate financial resources to perform the contract or the ability to obtain them;

- ii. The bidder is able to perform the contract within the contract term taking into consideration all existing commercial and governmental business commitments;
 - iii. The bidder has a satisfactory performance record on timber sale contracts. A prospective bidder that is or recently has been seriously deficient in contract performance shall be presumed not to be responsible, unless the RECO determines that the circumstances were beyond the bidder's control and were not created through improper actions by the bidder or affiliate, or that the bidder has taken appropriate corrective action. Past failure to apply sufficient tenacity and perseverance to perform acceptably under a contract is strong evidence that a purchaser is not a responsible bidder. The RECO shall consider the number of contracts involved and extent of deficiency of each in making this evaluation;
 - iv. The bidder has a satisfactory record of integrity and business ethics;
 - v. The bidder has or is able to obtain equipment and supplies suitable for logging the timber and for meeting the resource protection provisions of the contract; and
 - vi. The bidder is otherwise qualified and eligible to receive an award under applicable laws and regulations.
- c. A bidder may protest a determination made in the bid/award process to the RECO within 30 days of the date of the notification or rejection letter to the bidder. If the protest cannot be disposed of by agreement, the RECO will within 14 days forward the protest to the District Engineer, U. S. Army Engineer District, St. Louis, Missouri and so notify the protester in writing of such action. The District Engineer should consider such protest within 60 days of delivery but may continue the Sale of Government Forest Products process. In connection with any written protest proceedings under this provision, protestor should clearly:
- i. identify the Invitation for Bid No.;
 - ii. identify contact parties;
 - iii. state the reasons for the protest;
 - iv. provide documentation in support of the protest; and
 - v. state what is the desired result.

The decision of the District Engineer shall be final and conclusive. A written copy of the decision shall be mailed or otherwise furnished to the protester. The Government reserves the right to establish management objectives and requirements designed to achieve these objectives. These objectives are not subject to this protest process.

12. Determination of Acceptable Offers. Generally, an acceptable bid is one which:

- a. Is submitted by a bidder who is found to be fully responsible;
- b. Conforms to the Invitation for Bid;
- c. Equals or exceeds the appraised value of the property or is within an acceptable percentage of the appraised value; and
- d. Was independently arrived in open competition.

13. Equal Offers. Equal offers means two or more offers that are equal in value per bid item. **When equal acceptable offers are received from prospective bidders at the bid opening, both of which represent the highest bid, an amended bid price will be required to be submitted on-the spot at the bid opening by both prospective bidders until a single highest bidder is determined.** If only one of the highest equal offer bidders is present, their updated (increased) bid price will be accepted. If neither of the highest equal offer bidders are present, an updated price will be received via electronic means from each highest equal offer bidder until a single highest bidder is determined. For a date, time, and location of the bid opening, please reference the cover sheet to this Invitation for Bid.

14. Procedures in the Absence of an Acceptable Bid. Where an acceptable bid is not received for such property as a result of public advertising, it will be re-advertised unless the Real Estate Contracting Officer (RECO) determines, based upon written findings, which shall be preserved as part of the permanent file, that further public advertising will serve no useful purpose. If a determination is made that further advertising would serve no useful purpose or is not feasible, the RECO or his/her representative may negotiate a sale at the highest price obtainable, provided:

- a. All bids are first rejected.
- b. All past bidders, on any of the times, and any other known interested parties are afforded a fair opportunity to participate in the negotiations.
- c. The sale price is in excess of the highest bid received as a result of advertising.
- d. In the opinion of the RECO the price is reasonable.

SECTION II – TERMS AND CONDITIONS OF HARVESTING Clarence Cannon Dam and Mark Twain Lake

1. **Period of Performance.** The purchaser (most successful bidder) agrees to harvest all timber designated for removal under this sale agreement between November 1, 2021 through March 15, 2022. Harvesting operations will occur during normal business hours of Monday through Friday, between the hours of 7:00 am CST and 3:30 pm CST. Harvesting operations outside cited timeframes must be approved in advance by the Mark Twain Lake Project Office.
2. **Supervision.** When harvesting operations are in progress, the purchaser shall have on-site representatives designated to act upon his/her behalf. This representative shall be authorized to coordinate with Government personnel, receive notices or instructions, and coordinate necessary actions. This representative shall be designated in writing with appropriate contact information provided.
3. **Liability of Government.** The purchaser hereby waives all claims and agrees to hold the Government harmless for any damages to property or injury to person which may arise out of the existence of non-exploded ammunition, metal or foreign objects in trees on the premises, or for any damage whatsoever which may arise from the harvesting of timber by them or operations required.
4. **Compliance with Laws, Rules, Regulations.** All operations in connection with the removal of forest products sold hereunder shall be subject to all installation, local, State, and Federal laws and regulations pertaining to security, loading, operation of vehicles, fire, safety, sanitation, environmental protection, and other applicable rules and regulations. Failure to abide by such laws, rules, regulations, or directions may result in work stoppage or termination of the contract.
 - a. **Protection of Government Property.** All Government property including buildings, ditches, utility infrastructure, roads, bridges, fences, landscape, recreational facilities, and other operational features located within or immediately outside the exterior boundaries of the sale area shall be protected so far as possible in logging and other operations, and if damaged, shall be repaired and restored immediately by the purchaser. Subject to the approval of the Contracting Officer, any utility line or fence which may be damaged in felling or logging operations may be moved from one location to another, or specified trees may be left uncut. Roads, trails, and designated fire lanes shall at all times be kept free of logs, brush, and debris resulting from the purchaser's operations hereunder, and any road or trail used by the purchaser in connection with this sale that is damaged or injured beyond ordinary wear and tear through such use shall promptly be repaired by the purchaser to its original condition. The

purchaser shall exercise due caution to ensure the safety of all personnel on the sale area including all Government personnel engaged in inspection of purchaser activities.

- b. **Littering.** The purchaser shall institute controls to prevent littering of Government property with glass, metal, paper, plastic, oils, lubricants, fuels, detergents, or any other solid or liquid pollutants and shall ensure their employees, agents, and subcontractors refrain from doing so. Failure to maintain controls may result in work stoppage or termination of the contract. Costs associated with failure to comply with these requirements may be assessed against the purchaser.
 - c. **Fire Suppression.** The purchaser shall institute controls to prevent and suppress forest or vegetative fires that are attributed to the harvest operations. The purchaser agrees to reimburse the Government for the cost of fire suppression incurred as the result of their negligence or willful acts.
 - d. **Environmental Quality.** The purchaser shall institute controls to minimize environmental impacts, reduce soil erosion, reduce stream course impacts, and protect vegetative features. Failure to maintain controls may result in work stoppage or termination of the contract. Costs associated with failure to comply with these requirements may be assessed against the purchaser.
5. **Liquidated Damages.** The purchaser shall assume responsibility for the unauthorized removal of forest products in the amount of two times the fair market assessment and associated administrative costs.
6. **Harvest Operations.**
- a. **Schedule of Harvest.** The purchaser shall submit a schedule of harvest that includes dates of entry into the identified units, anticipated duration within the units, and operational hours. This schedule will accommodate the operational requirements of Mark Twain Lake Project Office.
 - b. **Identification of Forest Products.** The trees available for harvest under this sale contract are identified with a red paint line on the bole of the tree near the stump. Reference attached Exhibits for location, number of trees, and estimated volume. Boundary limits will be designated in the field. Standing, non-damaged, or unmarked trees shall be protected from harvest operations.
 - c. **Conduct of Harvest.**
 - i. **Felling.** All designated trees shall be felled to the ground. No trees shall be left hanging or in a condition determined to be hazardous.
 - ii. **Stump Height.** Stumps on standing trees will not exceed 12" from the ground level. This is not applicable to trees that are uprooted.

- iii. **Bucking and Limbing.** Debris resulting from bucking a limbing shall be left in the woods. Materials will be removed from landscape areas, stream courses, roads, recreation facilities, and trail systems.
- iv. **Haul Road/Skidder Trails.** Skidders shall operate on designated forest routes, and when possible, and practical, skidders shall operate from the internal surfaced road system within the recreation areas. Materials to be winched to the skidder located on the designated haul trail or road system. Haul trucks shall utilize approved routes as designated in the field.
- v. **Loading/Landing Areas.** Loading and Landing Areas will be designated at each of the three harvest locations. Locations will be identified in the field.
- vi. **Digging/Excavation/Soil Disturbance.** No digging or excavation will be permitted during harvest operations.
- vii. **Site Damage Controls.** In the event site damage becomes excessive, due to operational or environmental factors in the view of the Government, harvesting operations may be halted.

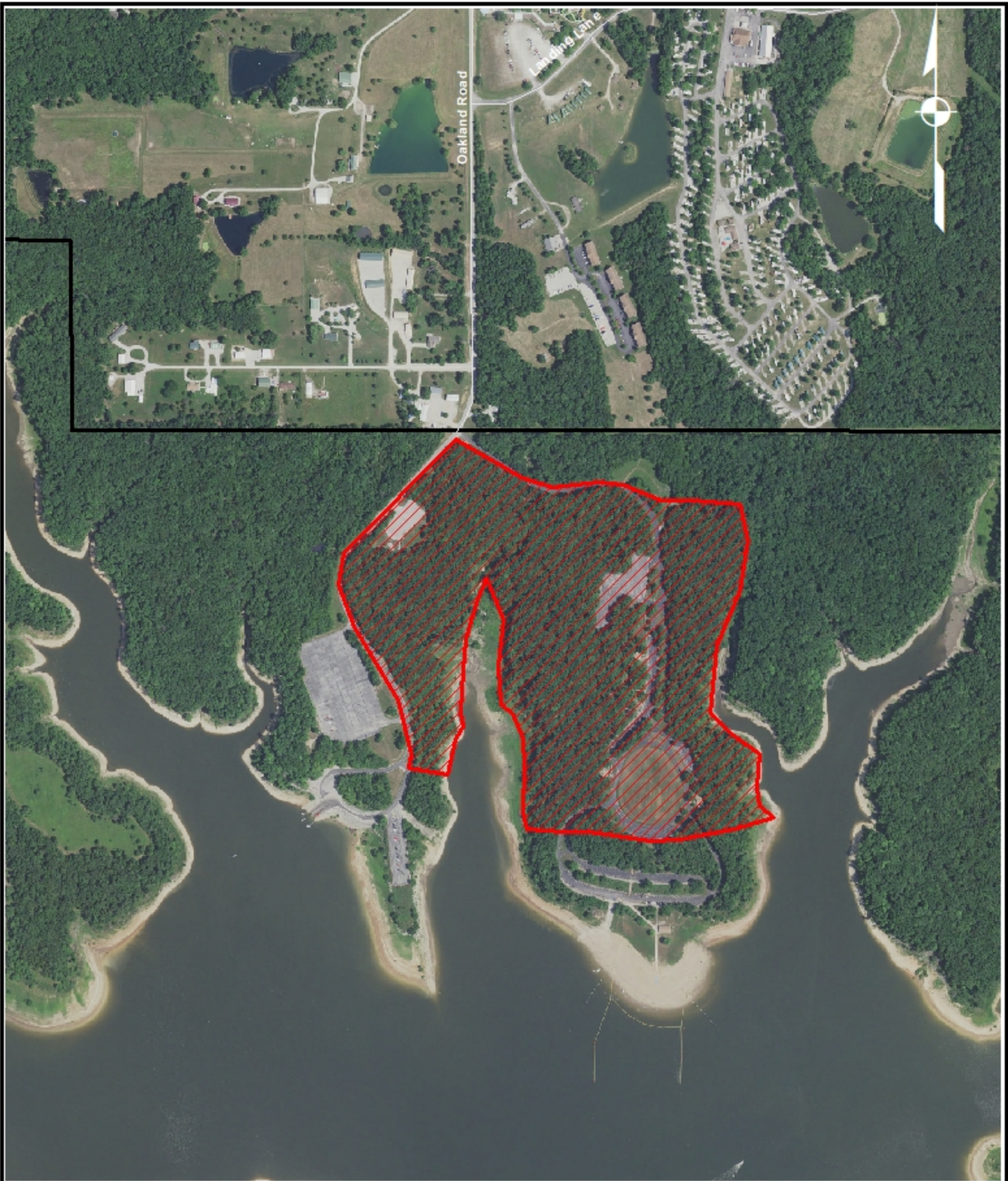
7. Nondiscrimination in Employment. During the performance of this contract, the Purchaser (in this Condition known hereinafter as “the Contractor”) agrees as follows:

- a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer (Chief of Real Estate Division) setting forth the provisions of this nondiscrimination clause.
- b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

- c. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- d. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer (Chief of Real Estate Division), advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- e. The Contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- f. The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to their books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- g. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- h. The Contractor will include the provisions of paragraphs (a) through (h) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of

Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States. [Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966–1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230, EO 13665 of April 8, 2014, 79 FR 20749, EO 13672 of July 21, 2014, 79 FR 42971]

8. **Contract Termination.** The Government may terminate this contract an any time by providing a ten (10) calendar days' notice in writing to the purchaser. Non-compliance with requirements contained in the sale contract terms and conditions may warrant termination. In the event of contract termination, the Government shall be released from liability for any damages or claims whatsoever nature which result from said termination.



US Army Corps
of Engineers

Clarence Cannon Dam and Mark Twain Lake
John S. Spalding Recreation Area
Timber Salvage Harvest

N 39 33.095' W 91 39.759'

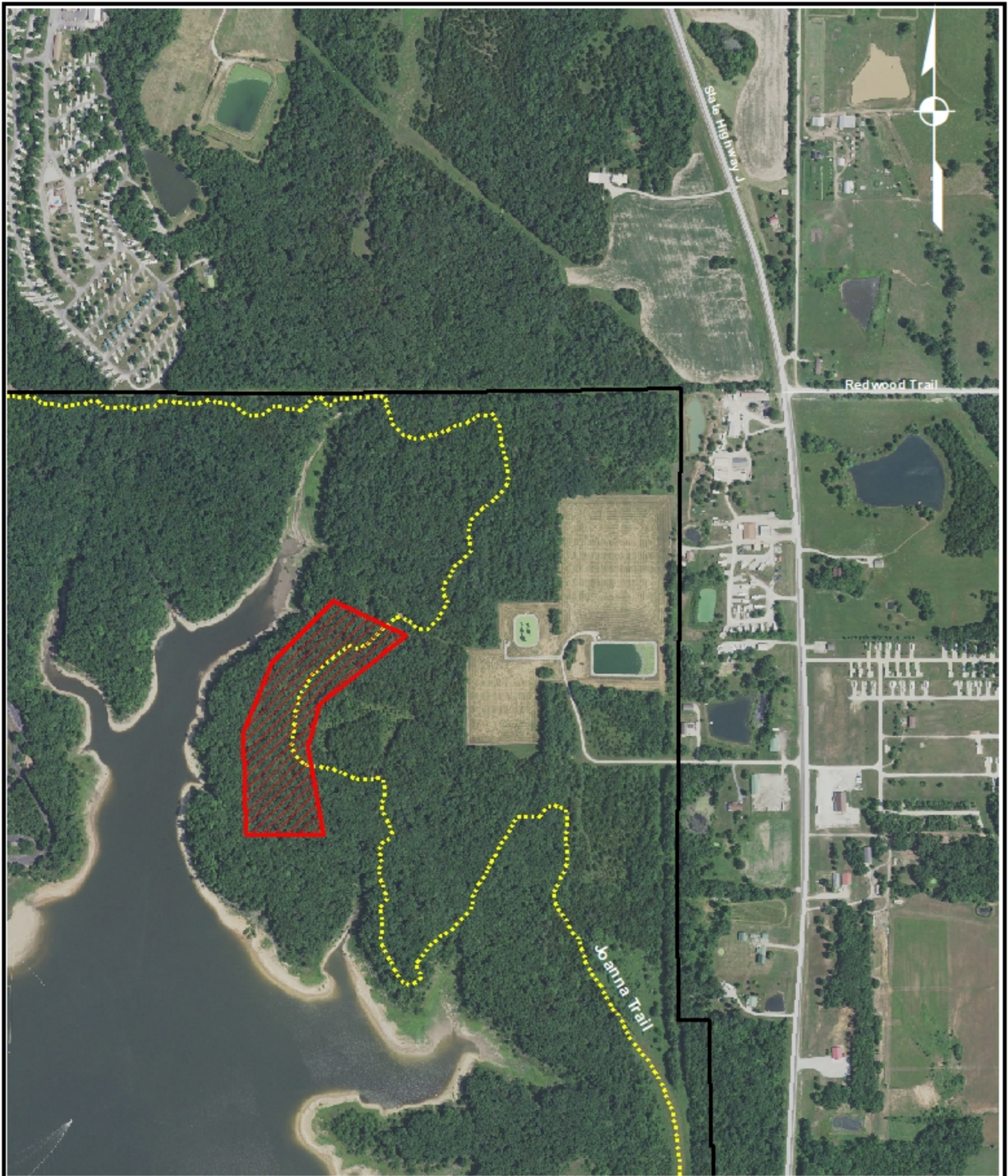
0 0.0375 0.075 0.15 0.225 0.3
Miles

Clarence Cannon Dam and Mark Twain Lake
 Minor Forest Products Sale
 Timber Inventory



John S. Spalding Recreation Area

Species	DBH	Logs	No. of Trees	Bd. Ft per Tree	Total Bd. Ft.
White Oak	12	1	4	60	240
White Oak	14	0.5	1	40	40
White Oak	14	1	10	80	800
White Oak	16	0.5	1	60	60
White Oak	16	1	7	100	700
White Oak	16	1.5	6	150	900
White Oak	18	0.5	2	70	140
White Oak	18	1	6	140	840
White Oak	18	1.5	4	190	760
White Oak	20	1	7	170	1190
White Oak	20	1.5	5	240	1200
White Oak	20	2	3	300	900
White Oak	22	1	2	210	420
White Oak	22	1.5	3	290	870
White Oak	24	1	3	250	750
White Oak	24	1.5	1	350	350
White Oak	26	0.5	1	160	160
Northern Red Oak	12	0.5	2	30	60
Northern Red Oak	12	1	1	60	60
Northern Red Oak	14	1	3	80	240
Northern Red Oak	16	1	3	100	300
Northern Red Oak	16	1.5	3	150	450
Northern Red Oak	18	0.5	1	70	70
Northern Red Oak	18	1	1	140	140
Northern Red Oak	18	1.5	1	190	190
Northern Red Oak	20	1.5	1	240	240
Northern Red Oak	20	2	3	300	900
Northern Red Oak	22	1	2	210	420
Northern Red Oak	22	2	3	360	1080
Black Oak	12	0.5	1	30	30
Black Oak	14	1	3	80	240
Black Oak	16	0.5	1	60	60
Black Oak	16	1	2	100	200
Black Oak	16	1.5	1	150	150
Black Oak	18	1	2	140	280
Black Oak	18	1.5	1	190	190
Black Oak	20	0.5	2	90	180
Black Oak	20	1	3	170	510
Black Oak	22	0.5	1	110	110
Black Oak	24	1	1	250	250
Black Walnut	12	0.5	2	30	60
Black Walnut	12	1	1	60	60
Black Walnut	14	1	1	80	80
Black Walnut	16	1	1	100	100
Black Walnut	16	1.5	6	150	900
Black Walnut	18	2	1	240	240
Shagbark Hickory	16	1.5	1	150	150
			121		18260



US Army Corps
of Engineers

Clarence Cannon Dam and Mark Twain Lake
John S. Spalding Recreation Area - Joanna Trail
Timber Salvage Harvest

N 39 33.117' W 91 39.338'

0 0.0375 0.075 0.15 0.225 0.3
Miles

Clarence Cannon Dam and Mark Twain Lake
 Minor Forest Products Sale
 Timber Inventory



John S. Spalding Recreation Area/Joanna Trail

Species	DBH	Logs	No. of Trees	Bd. Ft per Tree	Total Bd. Ft.
White Oak	14	0.5	5	40	200
White Oak	14	1	3	80	240
White Oak	16	0.5	6	60	360
White Oak	16	1	7	100	700
White Oak	18	0.5	3	70	210
White Oak	18	1	9	140	1260
White Oak	18	1.5	2	190	380
White Oak	18	2	1	240	240
White Oak	20	0.5	2	90	180
White Oak	20	1	2	170	340
White Oak	20	1.5	1	240	240
White Oak	22	1	7	210	1470
White Oak	24	1.5	1	350	350
White Oak	26	2	1	510	510
Northern Red Oak	16	1	1	100	100
Northern Red Oak	20	1	1	170	170
Northern Red Oak	22	1.5	1	290	290
Northern Red Oak	24	1	1	250	250
Northern Red Oak	26	1	1	300	300
Black Oak	14	1	2	80	160
Black Oak	16	0.5	1	60	60
Black Oak	16	1	1	100	100
Black Oak	18	0.5	1	70	70
Black Oak	18	1	1	140	140
Black Oak	20	1.5	1	240	240
Black Oak	24	1	1	250	250
Black Walnut	14	0.5	1	40	40
			64		8850



US Army Corps
of Engineers

Clarence Cannon Dam and Mark Twain Lake
Warren G. See South Spillway Recreation Area
Timber Salvage Harvest

N 39 31.326' W 91 38.065'

0 0.0375 0.075 0.15 0.225 0.3
Miles

Clarence Cannon Dam and Mark Twain Lake
 Minor Forest Products Sale
 Timber Inventory



Warren G. See South Spillway Recreation Area

Species	DBH	Logs	No. of Trees	Bd. Ft per Tree	Total Bd. Ft.
White Oak	14	0.5	11	40	440
White Oak	14	1	5	80	400
White Oak	16	0.5	7	60	420
White Oak	16	1	11	100	1100
White Oak	18	0.5	4	70	280
White Oak	18	1	12	140	1680
White Oak	18	1.5	3	190	570
White Oak	20	0.5	8	90	720
White Oak	20	1	10	170	1700
White Oak	20	1.5	1	240	240
White Oak	22	0.5	1	110	110
White Oak	22	1	4	210	840
White Oak	22	1.5	1	290	290
White Oak	24	0.5	1	130	130
White Oak	24	1	4	250	1000
White Oak	24	1.5	3	350	1050
White Oak	26	1	1	300	300
White Oak	28	0.5	1	190	190
White Oak	28	1	1	350	350
White Oak	30	0.5	1	220	220
White Oak	30	1	1	410	410
Northern Red Oak	14	1	4	80	320
Northern Red Oak	16	1	3	100	300
Northern Red Oak	18	1	4	140	560
Northern Red Oak	18	1.5	1	190	190
Northern Red Oak	20	1	4	250	1000
Northern Red Oak	20	1.5	2	240	480
Northern Red Oak	22	1	1	210	210
Northern Red Oak	24	1	1	250	250
Northern Red Oak	24	1.5	1	350	350
Northern Red Oak	28	1	1	350	350
Black Oak	14	1	4	80	320
Black Oak	16	1	4	100	400
Black Oak	16	1.5	1	150	150
Black Oak	24	1.5	1	350	350
Chinkapin Oak	18	1	1	140	140
Black Walnut	14	1.5	1	110	110
Black Walnut	20	1	2	170	340
Black Walnut	28	1.5	1	480	480
Shagbark Hickory	16	1	1	100	100
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