

PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797
ATTN: FORESTRY DIVISION, BUREAU OF WILDLIFE HABITAT MANAGEMENT

Gentlemen:

In answer to a recent advertisement for lump sum bids on an estimated **260,907 board feet of sawlogs and 606 tons of pulpwood** located on **113 acres** of State Game Lands No. 100, Burnside Township, Centre County, I offer the following:

\$ _____
(BID QUOTATION MUST BE TYPEWRITTEN OR IN INK)

Full payment will be made when agreements are signed or payment in full for each individual cutting block before cutting operations are started on that block.

It is further understood that an acceptable bond of **\$15,000.00** will be provided to guarantee faithful performance of the agreement.

Removal of timber to be subject to the terms, conditions and stipulations included in the Timber Sale Agreement. It is understood that the contract will run until **October 15, 2026.**

ATTACHED IS **CERTIFIED, CASHIER'S OR TREASURER'S CHECK OR MONEY ORDER, (PERSONAL, COMPANY, CORPORATE CHECK OR CASH ARE NOT ACCEPTED)**, IN THE AMOUNT OF **\$1,000.00** as evidence of good faith in bidding. I understand that it will be forfeited as fully liquidated damages upon my failure within 45 days after presentation to accept and execute the contract and provide a bond as required.

IN CASE OF PARTNERSHIP, EACH PARTNER SIGNS: IF A CORPORATION, THE AUTHORIZED OFFICER MUST SIGN, GIVING HIS/HER TITLE AND NAME OF CORPORATION.

Sincerely yours,

(Tax No. or Social Security No.)

Signature of Bidder - Sign In Ink

(Telephone Number)

Print Name

Firm Name

Street Address (Name, Number, Etc.)

City State Zip

BIDS MUST BE SUBMITTED IN AN ENVELOPE THAT CLEARLY STATES ON THE OUTSIDE: **BID PROPOSAL FOR TIMBER SGL #100.** Bids will be opened in the Bureau of Wildlife Habitat Management, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797, at **2:00 P.M., Monday, October 28, 2024.** The Commission reserves the right to reject any and all bids and to award the contract as deemed to its best interests.

STATE GAME LANDS #:100
SALE: 100-2024-01
NAME: Redlick Run

- INSTRUCTIONS TO BIDDERS -

The following information covers details concerning the proposed lump sum sale of an estimated **260,907 board feet of sawlogs and 606 tons of pulpwood** located on **113 acres** of State Game Lands No. 100, Burnside Township, C County.

See attached sheets for additional volume information. The volume and percentages are not guaranteed, and each prospective bidder is urged to examine the sale area and bid on the basis of his own estimate.

- SHOW DATE -

Timber will be shown to prospective bidders on **October 4, 2024**. Viewers will be met at **the intersection of Route #144 and 879 near the village of Moshannon, PA 16859** 10:00 a.m. and conducted to the sale area.

The timber to be sold will be clearly designated by **Gary Glick, 1566 S. RT 44 HWY, Jersey Shore, PA 17740**, telephone: 1-570-398-4744 ext. 30310, the Regional Forester.

- BIDS -

BIDS SHOULD BE MAILED AT LEAST FOUR (4) WORKING DAYS PRIOR TO BID OPENING TO PERMIT U.S. POSTAL SERVICE DELIVERY. USE SPECIAL MAIL SERVICE IF MAILED LATER THAN FOUR DAYS PRIOR TO BID OPENING. SPECIAL DELIVERY BIDS SHOULD BE ADDRESSED TO: PENNSYLVANIA GAME COMMISSION, FORESTRY DIVISION, 2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797.

Bids must be submitted in an envelope that clearly states on the outside: **BID PROPOSAL FOR TIMBER. SGL #100.** Bids received in envelopes not containing this information will be rejected.

In order to be considered, the bid shall be accompanied by a **CERTIFIED, CASHIER'S OR TREASURER'S CHECK, OR A BANK, POSTAL OR EXPRESS MONEY ORDER**, payable to the Pennsylvania Game Commission in the amount of **\$1,000.00**, as evidence of good faith in bidding, to be forfeited as fully liquidated damages upon the bidders failure to accept the award, execute the contract and give bond as required. Bid deposits will be returned to the unsuccessful bidder when the contract has been executed and a satisfactory performance deposit has been furnished.

In lieu of bid deposit, bidders may submit an open bid bond to cover the deposit requirement. Any bid bond must be filed for an annual period and both the amount of bond and the surety shall receive prior approval of the Pennsylvania Game Commission.

The Commission reserves the right to reject any and all bids and to award the contract as deemed to its best interests.

Bids will be opened in the Bureau of Wildlife Habitat Management, 2001 Elmerton Avenue, Harrisburg, Pennsylvania 17110-9797, at 2:00 P.M., **Monday, October 28, 2024**, telephone: 717/787-2039. **BIDS RECEIVED LATER THAN 2:00 P.M., THIS DATE, WILL BE REJECTED.**

- PERFORMANCE DEPOSIT -

A performance bond in the amount of **\$15,000.00** will be required in the form of a Certified Check or a Postal Money Order drawn to the order of the Pennsylvania Game Commission. Negotiable securities, including assignment of a bank savings account may be furnished in lieu of above. A bond with corporate surety approved by the Attorney General, or a bank Irrevocable Letter of Credit, may be posted provided the bond has an expiration date a minimum of 1 year beyond the expiration date of the timber contract.

- EXPIRATION OF CONTRACT -

Contract will expire **October 15, 2026.**

- PAYMENTS -

The sale is divided into **3** cutting blocks. Payment may be made by:

1. Total payment when agreement is signed.
or
2. Payment by individual block or blocks.

- 1 – 55% - 57 acres
- 2 – 42% - 55 acres
- 3 – 2% - 1 acre

Payment for Block 1 (55% of the bid price) is due at contract execution. Final payment is due No Later Than 120 days before the expiration of the Agreement

- ANTI DISCRIMINATION -

The contractor awarded the Timber Sale Agreement agrees he will not discriminate against any employee or other persons on account of race, sex, creed, age, ancestry or national origin.

- SAFETY and ENVIRONMENTAL PROTECTION -

The Buyer, his employees and sub-contractors are expected to perform all logging operations in a safe manner as required by applicable laws and regulations. The Commission expects the Buyer to ensure that logging crewmembers dress in protective attire, and perform their duties with equipment in accordance with standards established by the logging industry and the Occupational Safety and Health Administration (OSHA).

The PGC recommends that logging crews working on State Game Lands be trained in safe logging techniques and sound environmental logging practices through a formal training program such as the one provided by the Pennsylvania Sustainable Forestry Initiative (PA SFI) or another similar program.

Contractor must comply with the erosion and sediment control plan for disturbed areas that is included as a part of the timber contract.

- SPECIAL PROVISIONS -

See **9** Attached Sheet(s).

SPECIAL PROVISIONS FOR REDLICK RUN WILDLIFE HABITAT IMPROVEMENT PROJECT

S.G.L. # 100 Sale # 100-2024-01

1) ADMINISTRATIVE ITEMS

- a) PA One Call must be contacted by operator prior to the start of operations
- b) This 117-acre sale area contains 3 harvest blocks.
- c) **Payment for Block 1 (55% of the bid price) is due at contract execution. Final payment is due No Later Than 120 days before the expiration of the Agreement.**
- d) Sawtimber volumes were determined using a 100% tally in all blocks. Pulpwood volumes were determined using a 100% tally in all blocks.
- e) **No permanent paint may be used by bidders for marking/cruising this timber sale area.**
- f) **Whole tree harvesting is prohibited in ALL blocks.**
- g) **Tree length skidding is prohibited in ALL blocks.**
- h) **Only cable skidding is permitted in ALL blocks.**
- i) **Block 1 MUST be harvested between December 16, 2024 - June 1, 2025.**
- j) Buyer must provide a lock for use on the game land gate. The key or combination must also be provided to PGC Regional Forester.

2) BOUNDARIES, BLOCKS, AND CUTTING INSTRUCTIONS

- a) Whole tree harvesting is prohibited.
- b) Top-wood up to 4 inches DBH is reserved in all blocks and tree length skidding is also prohibited in all blocks.
- c) Potential landing locations are marked on the attached map. Landing locations and sizes will be determined through consultation between the successful bidder and the Regional Forester. Trees to be cut for landings will be tallied at that time.
- d) Timber sale boundaries are marked by a double blue stripe, except for **block 2** where the deer fence is the block boundary. A triple blue stripe represents a sharp turn in the block boundary. Blue "I's" indicates an island and harvesting/skidding is prohibited. No trees marked with blue are to be cut and no trees are to be felled across block boundaries.
- e) Trees marked with orange L's represent the perimeter of the log landing. These trees are not to be cut.
- f) In **block 1**, all trees marked with yellow paint and all trees between 1"-6" DBH must be cut, excluding conifers. No other trees are to be cut in these blocks.
- g) In **block 2**, reserve trees are marked with red paint and are not to be cut. All trees that are not marked with red paint are to be cut, down to 1" DBH, excluding conifers.

- h) In **block 3**, the boundary is marked with red "R's" and all trees within the boundary are to be cut and stumped. Do not cut trees marked with "R's".
- i) A deer fence is scheduled to be installed around the perimeter of **block 1**. The centerlines of this future deer fence are marked with orange F's. The trees with orange F's are just marked as a fence location reference and are only to be cut if they are also marked with yellow or are between 1"- 6" DBH. Slash and tops must be cleared a minimum of 50' from the centerline of this future fences.
- j) The fence corridor around the perimeter of **block 1** is getting cut much more aggressively than the rest of the acreage within this block. This fence corridor will create an approximate 100' wide clearcut swath, where the fence is scheduled to be installed in the near future. This area of **block 1** must be cut and skid prior to any other blocks in this project.
- k) If the new deer fence is installed around the perimeter of **block 1** prior to work being completely finished on this project, extra caution will need to be taken when working near this fence to prevent damage. Any damage to the fence in **block 1** and **block 2** must be repaired. All repairs to fences must be inspected and approved by the Regional Forester or designee on the ground.
- l) All conifers in all blocks are not to be cut.
- m) In all blocks, any reserved trees that are felled for safety reasons must be left at the stump. Stump height will not exceed the diameter of the tree or 12" maximum.
- n) Slash and tops must be cleared 50' from the edge of the existing deer fence.
- o) Slash and tops must be cleared 20' from the edge of all roads and block boundaries. Excessive slash must be kept at least 10' from the base of oak reserve trees.
- p) Game land boundary, roads, herbaceous openings, and spring runs are to be kept free of tops.
- q) Trees that are to be cut within the block are not to be placed over the blue block boundary.
- r) Cull portions of the tree are to be left at the stump. Logs and pulpwood are to be cut to length in the woods to minimize short ends and top debris at the landings.
- s) Extra caution should be taken to avoid felling damage or skidding damage to reserved trees.

3) US / STATE / LOCAL ROADS

- a) Contractor will be responsible for all permits and bonds on both state and township roads.

4) GAME LAND ROAD

a) **PGC Roads to Maintain**

- 1 All haul roads used by the operator will be suitably drained and crowned (2-6% slope) with a road grader or dozer with a 6-way blade at the conclusion of the sale or if roads are in poor condition and/or the sale is going to be left idle for any length of time. All existing culverts must be cleaned if needed at the end of the sale.
- 2 All road edges including berms will be graded to a contour that allows for the sheet flow of water from the driving surface to an area where it can infiltrate naturally or a ditch, if necessary, as determined by the regional forester.

- 3 The primary roads to access blocks 1 and 2 used for hauling **MUST** be returned to their pre-sale conditions.

b) PGC Roads to Build

- 1 A haul road of approximately 2,365 feet will need to be constructed (**SEGMENT B TO C**) to access a landing location for **block 1**. The boundary of this road is marked with red "R's" and all trees within the boundary are to be cut and stumped.
 - i. **176 tons of 3A modified limestone** will be applied in areas of roadway determined by the regional forester or designee on the ground.
- 2 One small drainage into block 1 will be crossed. **A French mattress will be required at this location**. The mattress is to be approximately 75 ft. long, and 15 ft. wide, and at least 2 ft. thick, will require **110 tons of AASHTO #3 limestone**. It is to be constricted according to the specifications of the PA Dirt and Gravel Road Technical Bulletin.
- 3 All haul roads used by the operator will be suitably drained and crowned (2-6% slope) with a road grader or dozer with 6-way blade at the conclusion of the sale or if the roads are in poor condition and the sale is going to be left idle for any length of time.
- 4 A stone rake and 10-ton vibrating roller will also be required following grading operations. All road edges including berms will be graded to a contour that allows for the sheet flow of water from the driving surface to an area where it can infiltrate naturally or a ditch, if necessary, as determined by the regional forester.
- 5 At the conclusion of the sale, 2365' of new road to be constructed, must be seeded, mulched, and fertilized in accordance with the seeding guidelines in **Section 7** of this contract.
- 6 All specified road work must be approved by the regional forester. Stone Requirements – all values listed are estimates. Considerably more stone could be necessary depending on road condition and operator care. All stone requirements assume a 16' wide roadway with a 12' wide driving surface once completed.
- 7 Tail drains and turnouts will be added or cleaned at the discretion of the regional forester.
- 8 Ditches and other drainage structures will be opened and re-established where needed at the discretion of the regional forester.

c) PGC Roads to Improve

1. Road segment **D to E** is a 528' section of haul road that leads from PGC Road to the landing in block 2. Prior to hauling, this section of the road will need to be completed. The contractor will supply and place **22 tons of 3A Modified** stone to areas of roadway determined by the regional forester or designee on the ground. Following application, the stone will be rolled with a 10-ton vibrating roller. This is a minimum and more stone may be required should site conditions dictate.
2. Road segment **A to B** is a 2112' section of haul road that leads from PGC Road to the new constructed road leading to block 1. Prior to hauling, this section of the road will need to be completed. The contractor will supply and place **44 tons of 3A Modified**

stone to areas of roadway determined by the regional forester or designee on the ground. Following application, the stone will be rolled with a 10-ton vibrating roller. This is a minimum and more stone may be required should site conditions dictate.

3. Requirements assume a 16 ft wide roadway with \approx a 12 ft wide driving surface once completed. Existing Haul Roads – 2,640 feet; 66 tons of 3A modified limestone

STONE TOTALS FOR ALL ROAD WORK

3A Modified limestone	242 tons
#3 Limestone	110 tons

5) LANDINGS

- a) There are two new landings to construct. The landing locations are shown on the sale map. Additional landings will be considered upon request. There will be added grading and seeding expenses if additional landings are used. Only designated landings are to be used, unless approved by the Regional Forester or designee on the ground. The perimeter of new landings are marked with orange L's. These trees are not to be cut. All trees located inside this perimeter must be removed.
- b) Logging debris is to be kept to a minimum. All logs and pulpwood are to be marked to length in the woods to eliminate short ends at the landings.
- c) Upon completion of the sale, landings are to be cleared of stumps, slash, and debris, leveled, and seeded according to specifications outlined in Section 7 below.

6) SKIDDING

- a) Primary skid trail locations will be determined by the forester-in-charge and contractor. Other existing trails used for skidding must be left open and level. Main skid trails and previously existing trails are to be opened, leveled, seeded, and have water bars added at the conclusion of the sale. Final condition of skid trails will be left to the discretion of the Regional Forester or designee on the ground.
- b) All main skid trails and any sections of skid trail with a high potential for erosion problems must be seeded according to specifications outlined in Section 7 below. Seeding of skid trails will be directed by the Regional Forester or designee on the ground.
- c) Skidders are to be kept off haul roads unless approved by Regional Forester or designee on the ground. If skidding on haul roads is necessary, grading and seeding will be required on these roads as well, if not already specified in section 4.
- d) Wet areas should be avoided when skidding. No skidding across small drainages will be permitted without the use of temporary bridges. Any treetops which are felled into small wet areas should be left in the water rather than pulled out.
- e) No skidding is permitted outside any of the sale boundaries unless first approved by the Regional Forester or designee on the ground.

- f) Water bars will need to be added to skid trails that sit idle for one month or more.

7) **SEEDING**

- a) Upon completion of the sale, approximately **6 acres** of haul roads, landings, and main skid trails are to be graded, cleared of rocks and debris, and seeded according to the following per acre rates:

<u>Skid Trails and Haul Roads - 4 acres</u>	<u>Total</u>
LBS/acre	
100 LBS OATS OR WHEAT (SEASONAL)	400 lbs.
<u>Landing - 2 acres</u>	
LBS/Acre	
100 LBS OATS OR WHEAT (SEASONAL)	200 lbs.
300 LBS. 10-20-20 FERTILIZER	600 lbs.
2 TONS LIME	4 tons
1.25 TONS/50 BALES STRAW MULCH	2.50 tons/100 bales

SEEDING DATES

Spring – March 15th to June 1st
 Fall – August 15th to October 1st

- b) In addition to the above listed roads, landings, food plots, and main skid trails, any additional road disturbance or sections of skid trail with a high potential for erosion will also need to be seeded as directed by the Regional Forester or designee on the ground and in accordance with the specifications outlined in this section.
- c) The Regional Forester is to be notified prior to the application of seed.
- d) Guaranteed catch of cover must be obtained to the satisfaction of the Regional Forester before the bond will be released.

8) **OPERATIONS AND NON-WORK DAYS**

- a) **No woods operation will be permitted on the following days:**
- 1. All Saturdays in the months of October, November, December, and January and any Sundays open to hunting.**
 - 2. The entirety of all elk seasons.**
 - 3. The opening day and all Saturdays during spring turkey season, including the youth spring gobbler hunt.**
 - 4. All the days of the general statewide bear season**
 - 5. The entire 2 weeks of the general firearms deer season**
 - 6. The opening day of the flintlock muzzleloader season**

No woods operation will be permitted from March 1 thru April 15 (SPRING BREAK-UP DATES) without the permission of the forester-in-charge.

- b) **The contractor, employees, and sub-contractors may not hunt to, from, or at the job site when the work location is beyond a gated road that is closed to public traffic. The**

contractor may travel to and from the work location on no-work days to check on the condition of equipment.

- c) The contractor is responsible for the control and collection of fluids leaking from any equipment used on the site. The contractor must have a spill containment and cleanup kit appropriate for the equipment being used. At a minimum, the kit will contain: plugs and clamps to control hydraulic line breaks, a container to collect leaking fluids, fluid absorbent pads and a shovel. Operating any equipment noticeably leaking fluids is prohibited. The contractor must collect and control fluids leaking from any equipment and dispose of properly.
- d) *It is unlawful to be present on State Game Lands from November 15 through December 15 inclusive when not engaged in lawful hunting or trapping and fail to wear a minimum of 250 square inches of daylight fluorescent-orange material on the head, chest, and back combined, or in lieu thereof, a hat of the same colored material. The material shall be worn so it is visible in a 360-degree arc.*

9) MISCELLANEOUS

- a) Operator must comply with the erosion and sedimentation control plan for the area.
- b) **Successful bidder is to contact PA One Call (1-800-242-1776) prior to construction of landings, haul roads, skid trails, or other earth moving activity to identify and locate underground utility lines.**
- c) Violation of contract provisions by the operator may subject the operator or its employees or contractors to fine based on Title 58 regulations.
- d) Be advised that the Timber Rattlesnake is a state protected species and is not to be harmed. Killing of Timber Rattlesnakes without a proper permit is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6.
- e) Operator will supply all employees working on the site with a map and copy of the sale provisions.
- f) Operator is to use gated gameland access roads for logging purposes only.
- g) Except for seasonally opened gates, PGC gates are to be kept closed at all times, except when active hauling is occurring, and the contractor is present on the site. Repeated failure to close gates will be penalized.

10) SAFETY AND LOGGER TRAINING

- a) The Buyer, his employees and sub-contractors are expected to perform all logging operations in a safe manner as required by applicable laws and regulations. The Commission expects the Buyer to ensure that logging crewmembers dress in protective attire, and perform their duties with equipment, in accordance with standards established by the logging industry and the Occupational Safety and Health Administration (OSHA).
- b) The PGC recommends that logging crews working on State Game Lands be trained in safe logging techniques and sound environmental logging practices through a formal training program such as the one provided by the Pennsylvania Sustainable Forestry Initiative or another similar course.

11) FORESTER CONTACT INFORMATION

Forester	Regional Forester	Assistant Regional Forester
Kirk Miller	Gary Glick	Travis McNichol
(570) 660-9414	(570) 398-4744 Ext. 30310	(814) 342-0629

Please feel free to call with any questions or concerns.

12) PA RIGHT TO KNOW PROVISIONS

- a) The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, applies to this contract.
- b) Unless the Contractor provides the Commonwealth, in writing, with the name and contact information of another person, the agency shall notify the Contractor using the Contractor information provided by the Contractor in SRM [or “the legal contact information provided in this contract”] if the agency needs the Contractor’s assistance in any matter arising out of the Right to Know Law (“RTKL”). The Contractor shall notify the agency in writing of any change in the name or the contact information within a reasonable time prior to the change.
- c) Upon notification from the Commonwealth that the Commonwealth requires the Contractor’s assistance in responding to a RTKL request for records in the Contractor’s possession, the Contractor shall provide the Commonwealth, within fourteen (14) calendar days after receipt of such notification, access to, and copies of, any document or information in the Contractor’s possession which arises out of the contract that the Commonwealth requests (“Requested Information”) and provided such other assistance as the Commonwealth may request in order to comply with the RTKL. If the Contractor fails to provide the Requested Information within fourteen (14) calendar days after receipt of such request, the Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, detriment or harm that the Commonwealth may incur as a result of the Contractor’s failure, including any statutory damages assessed against the Commonwealth.
- d) The Commonwealth’s determination as to whether the Requested Information is a public record is dispositive of the question as between the parties. Contractor agrees not to challenge the Commonwealth’s decision to deem the Requested Information a Public Record. If the Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, the Contractor will immediately notify the Commonwealth, and will provide a written statement signed by a representative of the Contractor explaining why the requested material is exempt from public disclosure under the RTKL within seven (7) calendar days of receiving the request. If, upon review of the Contractor’s written statement, the Commonwealth still decides to provide the Requested Information, Contractor will not challenge or in any way hold the Commonwealth liable for such a decision.
- e) The Commonwealth will reimburse the Contractor for any costs associated with complying with this provision only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.
- f) Contractor agrees to abide by any decision to release a record to the public made by the Office of Open Records, or by the Pennsylvania Courts. The Contractor agrees to waive all rights or remedies that may be available to it as a result of the Commonwealth’s disclosure of Requested Information pursuant to the RTKL. Contractor’s duties relating to the RTKL are continuing duties that survive the expiration of this contract and shall continue as long as the Contractor has Requested Information in its possession.

Report For Redlick Run

Sale Name:	Redlick Run	SGL Number:	100
Forester:	Miller	Report Date:	08/29/2024
Blocks Numbers in Sale:	1,2,3	Acres:	113.1
County:	Centre	Township:	BURNSIDE

**The Pennsylvania Game Commission
SGL #100 - Redlick Run Timbersale
Scribner Rule (BDFT) - All Volumes are Estimates**

Sale Summary by Harvest Block														
Block Number	Area		Harvest Type	Sawtimber				Pulpwood				Culls		
	Acres	% of Sale		Method	BDFT	Per Acre	% of Sale	Method	Tons	Per Acre	% of Sale	2 - 4"	6 - 10"	12 +"
1	57	50%	Shelterwood	100% Tally	143,657	2,522	55%	100% Tally	520	9	86%	1	15	26
2	55	48%	Overstory Removal	100% Tally	110,774	2,020	42%	100% Tally	60	1	10%	0	1	4
3	1	1%	Clearcut	100% Tally	6,476	4,849	2%	100% Tally	26	19	4%	0	0	0
Total	113	100%			260,907		100%		606	5.4	100%	1	16	30

The Pennsylvania Game Commission SGL #100 - Redlick Run Timbersale Scribner Rule (BDFT) - All Volumes are Estimates

Block All - 113 acres

Species	10"-12" DBH		14" DBH		16" DBH		18" DBH		20" DBH		22" DBH		24" DBH		26" DBH		28" DBH		30"+ DBH		Sawtimber Totals			Pulpwood	
	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	Total Trees	Total Volume	Avg Vol Per Tree	Trees	Tons
White Oak - dead	47	2,008	73	5,708	91	10,490	93	15,412	74	15,300	52	13,432	21	6,238	19	7,576	4	1,570	0	0	474	77,734	164	94	64
White Oak	57	2,410	96	7,319	88	11,080	65	10,910	28	6,280	13	3,621	6	2,490	4	1,580	3	1,360	1	670	361	47,720	132	73	26
Red Maple	99	3,872	122	8,739	91	9,535	64	10,009	30	5,717	11	3,103	3	1,006	1	324	1	380	0	0	422	42,684	101	904	410
N. Red Oak	2	108	9	706	9	1,161	11	1,919	25	5,965	24	7,594	11	4,477	12	5,471	8	4,043	11	7,967	122	39,410	323	10	7
Chestnut Oak	39	1,663	47	3,175	48	5,171	54	8,430	22	4,693	9	2,246	6	1,679	1	298	1	614	0	0	227	27,969	123	24	10
N. Red Oak - dead	0	0	0	0	1	109	2	387	7	1,907	7	2,141	6	2,027	2	896	4	1,953	1	896	30	10,315	344	3	5
Chestnut Oak - dead	4	179	11	791	11	1,240	6	881	3	437	1	207	2	596	0	0	0	0	0	0	38	4,331	114	13	9
Scarlet Oak	0	0	5	336	3	333	5	934	3	739	2	638	2	690	0	0	1	486	0	0	21	4,157	198	1	1
Black Oak - dead	0	0	1	48	0	0	2	319	1	234	2	504	0	0	1	424	0	0	0	0	7	1,530	219	0	0
Sweet Birch	4	191	8	559	3	355	0	0	3	393	0	0	0	0	0	0	0	0	0	0	18	1,498	83	61	22
Scarlet Oak - dead	0	0	0	0	0	0	1	82	0	0	2	638	1	433	0	0	0	0	0	0	4	1,152	288	1	3
Red Maple - dead	3	162	4	259	3	327	1	143	1	247	0	0	0	0	0	0	0	0	0	0	12	1,139	95	53	25
American Sycamore	1	31	0	0	0	0	0	0	0	0	1	276	0	0	0	0	0	0	0	0	2	306	153	0	0
Black Oak	0	0	2	148	1	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	251	84	0	0
White Pine	0	0	1	45	0	0	0	0	0	0	1	201	0	0	0	0	0	0	0	0	2	246	123	2	3
Black Cherry	0	0	2	101	0	0	1	143	0	0	0	0	0	0	0	0	0	0	0	0	3	244	81	52	15
Black Cherry - dead	1	34	1	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	114	57	3	1
Sweet Birch - dead	0	0	0	0	1	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	106	106	2	1
Black Gum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	2
Other Non-comm.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Serviceberry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1
American Sycamore - dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Black Gum - dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Sassafras	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Serviceberry - dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Pin Cherry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Total	257	10,658	382	28,013	350	40,010	305	49,569	197	41,913	125	34,601	58	19,635	40	16,569	22	10,405	13	9,533	1,749	260,907	149	1,322	606

The Pennsylvania Game Commission SGL #100 - Redlick Run Timbersale Scribner Rule (BDFT) - All Volumes are Estimates

Block 1 - 57 acres

Species	10"-12" DBH		14" DBH		16" DBH		18" DBH		20" DBH		22" DBH		24" DBH		26" DBH		28" DBH		30"+ DBH		Sawtimber Totals			Pulpwood	
	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	Total Trees	Total Volume	Avg Vol Per Tree	Trees	Tons
White Oak - dead	45	1,924	73	5,708	89	10,248	92	15,229	74	15,300	52	13,432	20	5,793	19	7,576	4	1,570	0	0	468	76,779	164	93	63
Red Maple	96	3,769	114	8,220	79	8,474	57	9,070	26	5,066	8	2,263	2	632	1	324	0	0	0	0	383	37,818	99	773	368
N. Red Oak - dead	0	0	0	0	1	109	2	387	7	1,907	7	2,141	6	2,027	2	896	4	1,953	1	896	30	10,315	344	3	5
White Oak	5	182	9	699	10	1,091	2	319	2	345	6	1,586	0	0	0	0	2	860	1	670	37	5,751	155	26	11
Chestnut Oak - dead	4	179	11	791	10	1,177	5	749	2	270	1	207	2	596	0	0	0	0	0	0	35	3,968	113	13	9
N. Red Oak	0	0	0	0	0	0	0	0	0	0	0	0	1	374	0	0	1	528	2	1,054	4	1,956	489	2	1
Black Oak - dead	0	0	1	48	0	0	2	319	1	234	2	504	0	0	1	424	0	0	0	0	7	1,530	219	0	0
Sweet Birch	4	191	7	510	3	355	0	0	3	393	0	0	0	0	0	0	0	0	0	0	17	1,449	85	47	20
Chestnut Oak	1	66	0	0	2	235	1	132	0	0	1	207	0	0	0	0	1	614	0	0	6	1,254	209	3	1
Scarlet Oak - dead	0	0	0	0	0	0	1	82	0	0	2	638	1	433	0	0	0	0	0	0	4	1,152	288	1	3
Red Maple - dead	3	162	4	259	3	327	1	143	1	247	0	0	0	0	0	0	0	0	0	0	12	1,139	95	53	25
Black Oak	0	0	1	48	1	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	151	76	0	0
Black Cherry	0	0	0	0	0	0	1	143	0	0	0	0	0	0	0	0	0	0	0	0	1	143	143	15	7
Black Cherry - dead	1	34	1	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	114	57	3	1
Sweet Birch - dead	0	0	0	0	1	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	106	106	2	1
American Sycamore	1	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	31	31	0	0
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
Other Non-comm.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
American Sycamore - dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Black Gum - dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Black Gum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Serviceberry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Serviceberry - dead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Total	160	6,538	221	16,362	199	22,227	164	26,573	116	23,761	79	20,979	32	9,854	23	9,220	12	5,524	4	2,620	1,010	143,657	142	1,045	520

The Pennsylvania Game Commission SGL #100 - Redlick Run Timbersale Scribner Rule (BDFE) - All Volumes are Estimates

Block 2 - 55 acres

Species	10"-12" DBH		14" DBH		16" DBH		18" DBH		20" DBH		22" DBH		24" DBH		26" DBH		28" DBH		30"+ DBH		Sawtimber Totals			Pulpwood		
	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	Total Trees	Total Volume	Avg Vol Per Tree	Trees
White Oak	51	2,196	87	6,620	77	9,850	62	10,407	25	5,644	7	2,035	5	2,045	3	1,273	1	500	0	0	318	40,571	128	47	15	
N. Red Oak	2	108	9	706	9	1,161	10	1,776	25	5,965	24	7,594	10	4,103	12	5,471	7	3,516	9	6,913	117	37,311	319	8	6	
Chestnut Oak	38	1,597	47	3,175	46	4,935	53	8,298	19	3,898	8	2,039	6	1,679	1	298	0	0	0	218	25,920	119	20	9		
Scarlet Oak	0	0	5	336	3	333	5	934	3	739	2	638	2	690	0	0	1	486	0	0	21	4,157	198	1	1	
Red Maple	3	103	0	0	2	177	1	194	0	0	1	308	1	374	0	0	0	0	0	8	1,156	145	92	18		
White Oak - dead	2	84	0	0	2	242	0	0	0	0	0	0	1	445	0	0	0	0	0	5	771	154	1	1		
Chestnut Oak - dead	0	0	0	0	1	63	1	132	1	168	0	0	0	0	0	0	0	0	0	3	363	121	0	0		
American Sycamore	0	0	0	0	0	0	0	0	0	0	1	276	0	0	0	0	0	0	0	1	276	276	0	0		
Black Cherry	0	0	2	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	101	50	35	6		
Black Oak	0	0	1	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100	100	0	0		
Sweet Birch	0	0	1	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	49	49	14	2		
Black Gum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	2		
Serviceberry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0		
Sassafras	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		
Pin Cherry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		
Total	96	4,088	152	11,087	140	16,761	132	21,741	73	16,414	43	12,889	25	9,336	16	7,043	9	4,502	9	6,913	695	110,774	159	233	60	

The Pennsylvania Game Commission SGL #100 - Redlick Run Timbersale Scribner Rule (BDFE) - All Volumes are Estimates

Block 3 - 1 acres

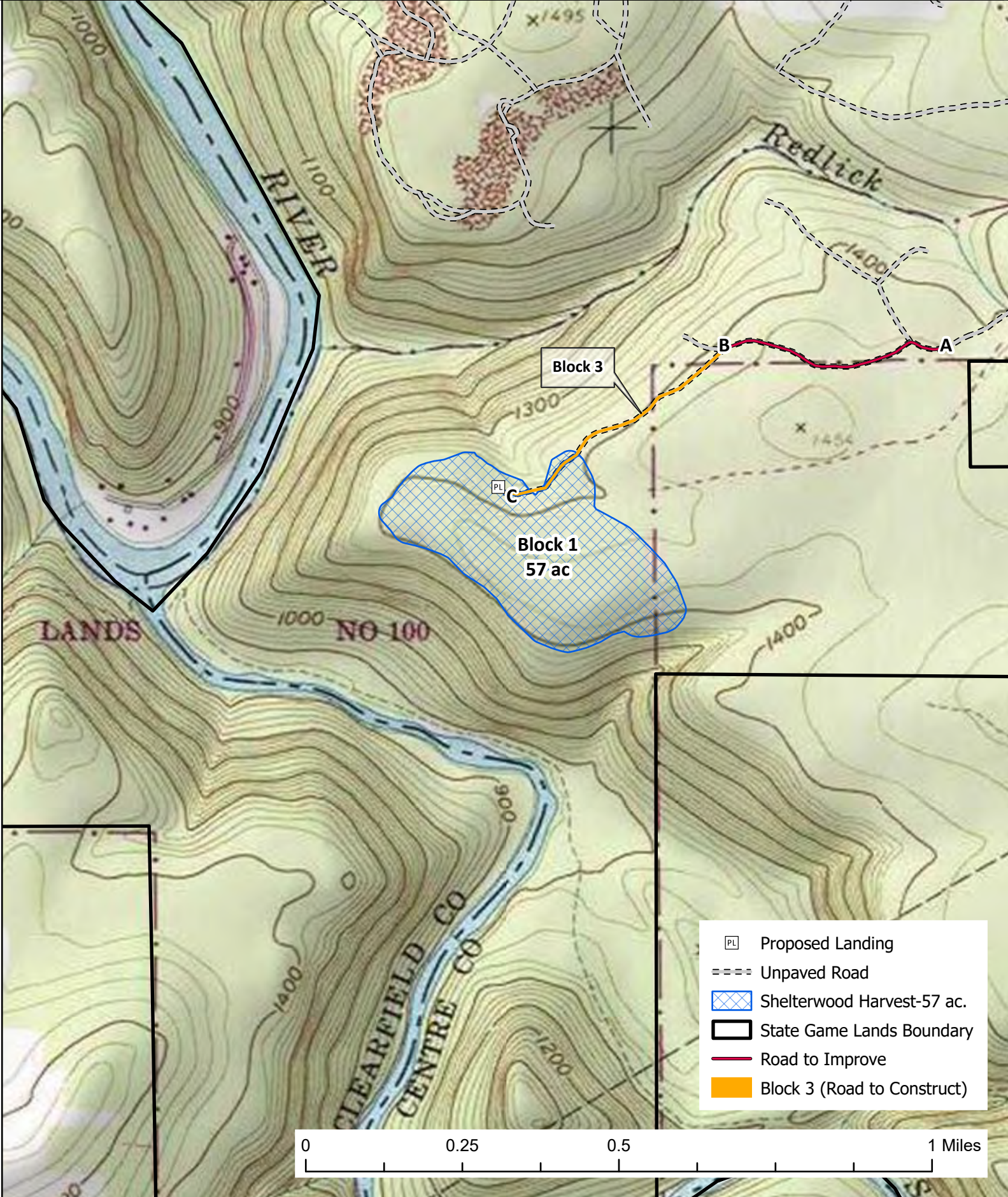
Species	10"-12" DBH		14" DBH		16" DBH		18" DBH		20" DBH		22" DBH		24" DBH		26" DBH		28" DBH		30"+ DBH		Sawtimber Totals			Pulpwood		
	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	#TR	VOL	Total Trees	Total Volume	Avg Vol Per Tree	Trees
Red Maple	0	0	8	519	10	884	6	746	4	651	2	532	0	0	0	0	1	380	0	0	31	3,710	120	39	23	
White Oak	1	33	0	0	1	139	1	183	1	292	0	0	1	445	1	307	0	0	0	0	6	1,398	233	0	0	
Chestnut Oak	0	0	0	0	0	0	0	0	3	795	0	0	0	0	0	0	0	0	0	3	795	265	1	1		
White Pine	0	0	1	45	0	0	0	0	0	0	1	201	0	0	0	0	0	0	0	2	246	123	0	0		
White Oak - dead	0	0	0	0	0	0	1	183	0	0	0	0	0	0	0	0	0	0	0	1	183	183	0	0		
N. Red Oak	0	0	0	0	0	0	1	143	0	0	0	0	0	0	0	0	0	0	0	1	143	143	0	0		
Black Cherry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
Black Gum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		
Serviceberry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		
Total	1	33	9	564	11	1,022	9	1,256	8	1,737	3	733	1	445	1	307	1	380			44	6,476	147	44	26	



Redlick Run Infrastructure Map

Block 1 & Block 3, 100-2024-01

State Game Land 100, Centre County, Burnside Township











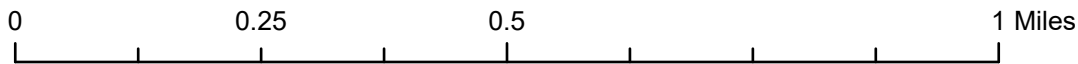
Redlick Run Infrastructure Map

Block 2, 100-2024-01

State Game Land 100, Centre County, Burnside Township



-  Proposed Landing
-  Unpaved Road
-  Reserve-5 ac.
-  Overstory Removal-54 ac.
-  State Game Lands Boundary
-  Road to Improve

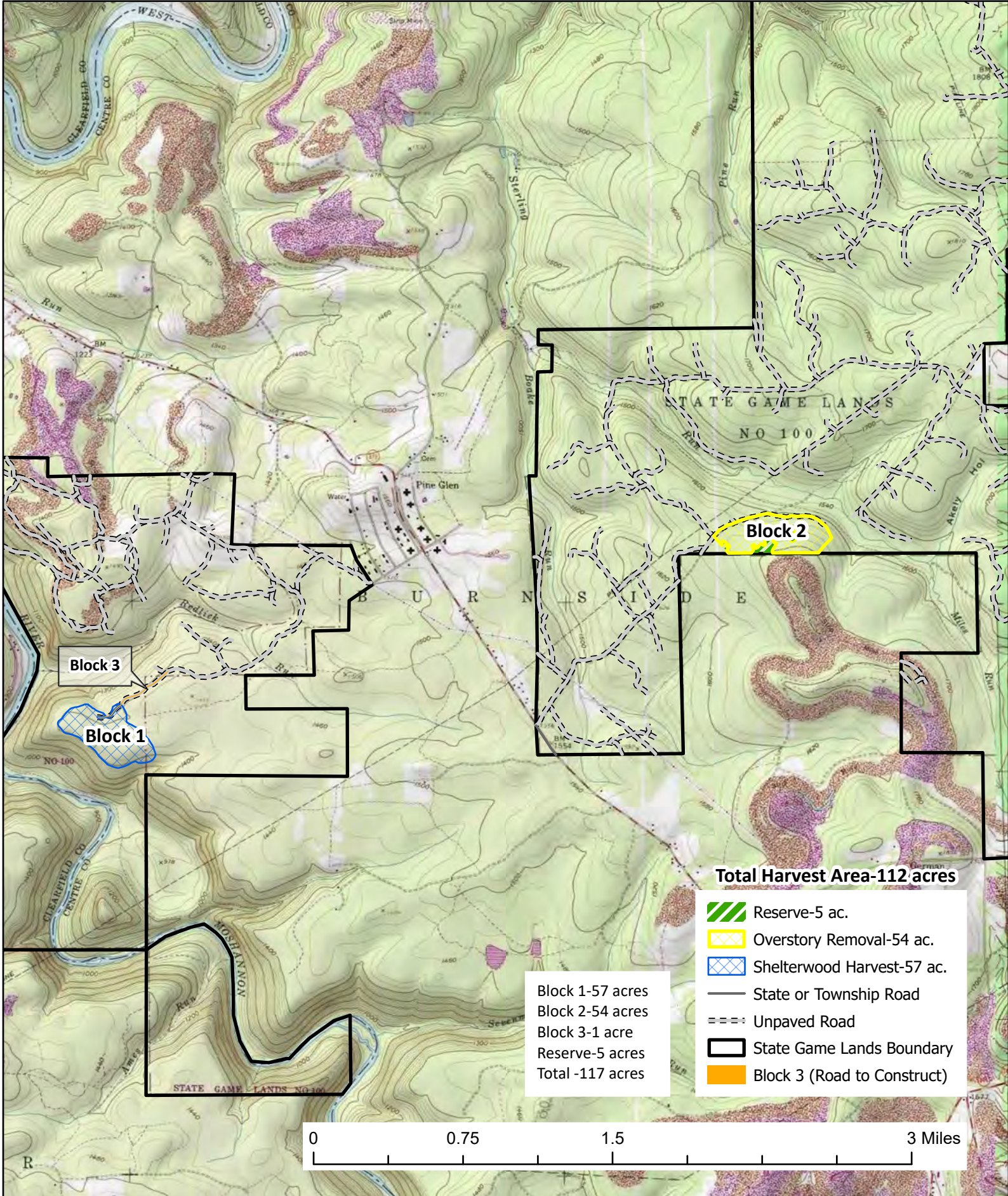




Redlick Run Habitat Improvement Project

100-2024-01

State Game Land 100, Centre County, Burnside Township










Block 3

Block 1

Block 2

Total Harvest Area-112 acres

-  Reserve-5 ac.
-  Overstory Removal-54 ac.
-  Shelterwood Harvest-57 ac.
-  State or Township Road
-  Unpaved Road
-  State Game Lands Boundary
-  Block 3 (Road to Construct)

Block 1-57 acres
 Block 2-54 acres
 Block 3-1 acre
 Reserve-5 acres
 Total -117 acres

0 0.75 1.5 3 Miles

French Mattress: A structure under a road consisting of clean coarse rock wrapped in geotextile fabric through which water can pass freely. French mattresses are used in extremely wet areas, such as wetlands, to support the roadbed while allowing unrestricted water movement.

Criteria for French Mattress Use

- Areas where concentrated outlet flow through a pipe is undesirable, impractical, or regulated.
- Low-lying areas near streams or wetlands where installing cross drains would be difficult due to lack of grade or vegetation.
- Areas where the road acts as a dam by cutting off the natural flow of subsurface water.
- Areas with a high water table.

Benefits of French mattresses

- Stabilizes the road base in areas where the road is weakened by water saturation.
- Allows for bi-directional free flow of water through road base.
- Maintains dispersed flows and prevents gully erosion above or below the structure.
- Can be used in wetland situations where a traditional pipe may lower the wetland water level.
- Requires no maintenance and has a long service life.
- Unlike pipes, French Mattresses are extremely difficult for beavers to plug.
- Maintains natural vegetative communities and habitat by connecting floodplains.

Important mattress considerations

- Mattresses are **NOT** stream or road drainage pipe replacements. Mattresses should **NOT** be used for concentrated overland flow, such as small stream channels or storm water from ditches. These flows naturally carry sediment, which will clog the mattress over time.
- Mattress size is very flexible. In the example below, three small mattresses were used to drain several springs and seeps. In the example on the back, a large mattress was used to allow wetland flow through during high flows. The width, depth, and size of stone used will all affect the flow capacity of the mattress.
- The finished mattress should be covered by at least 8 inches of compacted fill material.
- French mattresses should be installed to match the slope of the land. In wetland situations, this slope may be minimal. In sloped areas (as pictured below), a 1- to 2-percent slope should be used to aid drainage.

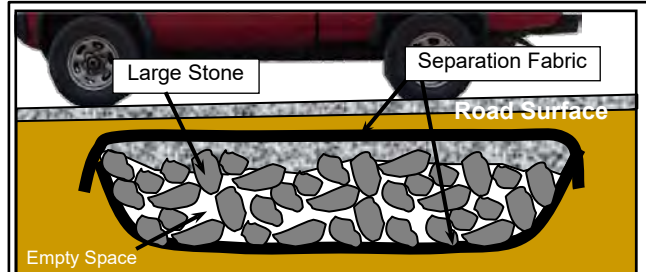


Photo 1. Graphical side view of the mattress components.



Photo 2. Small mattresses installed to drain several springs and seep.



Photo 3. Large mattresses allow wetland flow.



Figures 1-4. French mattress construction sequence.

Reminder: A French mattress should never be used to replace a standard stream pipe or road drainage crosspipe. The frequent flows and sediment load from these sources will eventually clog the mattress.

Construction Sequence

This is a large mattress using large stone to accommodate a wide wetland.

1. Excavate the mattress to desired depth, allowing for a minimum 8 inches of cover over the mattress. Place geotextile fabric in the trench, leaving enough fabric on the sides to overlap on the top of the finished mattress (Figure 1).
2. Place porous stone on top of the fabric and spread out into a uniform bed (Figure 2).
3. Wrap ends of fabric over top of structure. Place a piece of fabric on the top if existing fabric does not completely cover mattress. Overlap all fabric joints by at least 12 inches (Figure 3).
4. Compact fill over top of finished mattress (Figure 4).

Materials required for a French mattress:

- **Geotextile fabric (Class 2 woven):** The fabric around the mattress allows water to pass through while blocking fine silt and clay, which would eventually clog the structure. In situations where water flowing into the mattress may contain sediment (farm fields, etc.), the ends of the mattress should also be wrapped in fabric.
- **Clean Stone:** Use clean stone. Clean stone is relatively uniform in size with no fine material. Typically 3- to 4-inch-diameter stone is used. Larger stones will increase the flow capacity of the mattress.

Equipment required for a French mattress

- **Excavator/backhoe:** Needed to excavate trench; helps to spread stone after dumping.
- **Trucks:** Needed to import clean stone (rock) and haul away excavated material.
- **Hand Tools:** Rakes and shovels to move and level stone.
- **Compaction:** A tamper or vibratory plate can compact fill over small mattresses. A roller is needed for larger mattresses.



Photo 4. This roadway cuts across a floodplain wetland. A 300 foot long French mattress was used to provide relief for wetland flows while providing a stable road base and preventing beavers from damming the nearby stream pipe.