October 1, 2024

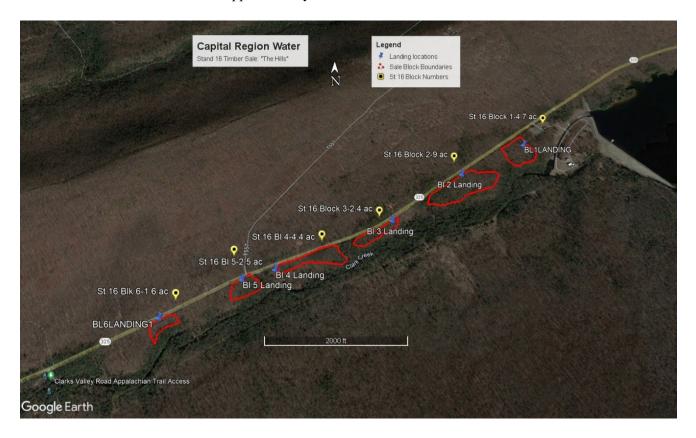
Appalachian Forest Consultants, LLC

Invites Your Bid on the...

Capital Region Water – DeHart Property – Timber Sale (Management Unit 16)

Located in:

Rush Township, Dauphin County, PA Approximately 25 Acre Harvest Area



Highlights of this Timber Sale:

- Approximately 25 acre harvest area in 6 small blocks
- Approximately 70,599 bf sawlogs estimated
- Approx. 52,107 bf white oak estimated by 100% tally
- FSC certified under TNC Group Certification as NC-FM/COC-000238 FSC 100%

CRW Stand 16 Prospectus Table

Estimated Volume/Acre and Total, International ¼" Log Rule FC 78

Species	Bf volume/acre	Total estimated Saw volume (BF)
White Oak	2,084	52,107
Scarlet Oak	250	6,242
Chestnut Oak	4	112
Black Oak	107	2,684
Red Maple	95	2,380
Tulip Poplar	206	5,162
Birch	57	1,428
Hemlock	9	218
White Pine	11	266
Total	2,823	70,599
Acres	25	
Avg. dbh	14.7"	
Pulp Tons	Est. 248 tons hwd, 2.6	
	tons softwood	

Stand and Stock Tables for marked trees...

DBH	All Trees	White Oak	Chestnut Oak	Birch	Red Maple	White Pine
12	147	135	2	1	9	1
14	144	136	0	2	6	(
16	84	78	0	2	4	1
18	36	31	0	3	2	(
20	12	11	0	1	0	(
22	5	5	0	0	0	(
24	1	0	0	0	1	(
26	0	0	0	0	0	(
28	0	0	0	0	0	(
30	0	0	0	0	0	(
Culls (not tallied)	28	20	0	0	8	(
Totals (# trees)	459	416	2	9	30	2
DBH	All Trees	Scarlet Oak	Hemlock	Tulip Poplar	Black Oak	
12	5	0	2	2	1	
14	7	2	0	3	2	
16	11	3	1	5	2	
10				1	2	
18		7	0	1	_	
	10	7 2		_		
18	10 4		0	1	1	
18 20	10 4 7	2	0	1 0	1 4	
18 20 22	10 4 7 2	2	0 0 0	1 0 1	1 4 0	
18 20 22 24	10 4 7 2 3	2 3 1	0 0 0	1 0 1	1 4 0	
18 20 22 24 26	10 4 7 2 3	2 3 1 2	0 0 0 0	1 0 1 1	1 4 0 0	
18 20 22 24 26 28	10 4 7 2 3	2 3 1 2	0 0 0 0	1 0 1 1 1	1 4 0 0 0	

DBH		All Trees	White Oak	Chestnut Oak	Birch	Red Maple	White Pine
	12	8,288	7,560	112	56	504	56
	14	18,606	17,697	0	237	672	0
	16	16,035	14,906	0	286	633	210
	18	7,822	6,949	0	553	320	0
	20	3,542	3,246	0	296	0	0
	22	1,749	1,749	0	0	0	0
	24	251	0	0	0	251	0
	26	0	0	0	0	0	0
	28	0	0	0	0	0	0
	30	0	0	0	0	0	0
	32	0	0	0	0	0	0
Totals		56,293	52,107	112	1428	2380	266
DBH		All Trees	Scarlet Oak	Hemlock	Tulip Poplar	Black Oak	
	12	280	0	112	112	56	
	14	1,029	306	0	417	306	
	16	2,006	526	106	1021	353	
	18	2,526	1,835	0	274	417	
	20	1,163	644	0	348	171	
	22	2,815	1,434	0	0	1,381	
	24	964	441	0	523	0	
	26	1,682	1,056	0	626	0	
	28	850	0	0	850	0	
	30	991	0	0	991	0	
			_	_	0	0	
	32	0	0	0	U	U	

Important Information for Bidders:

- Capital Region Water reserves the right to reject any and all bids.
- Buyer will be required to provide the following prior to start of harvest:
 - o **Performance deposit/bond** of \$10,000.00 (ten thousand dollars) at signing of timber sale agreement
 - o Insurance, Safety, Erosion Control Plan requirements (below)
- Payment Schedule –50% of bid amount must be paid at signing of contract. Remaining 50% of bid will be due on/before January 15th if activity has not started. 100% of bid amount is due before any activity can begin. Payment check(s) made out to "Capital Region Water." This is a "lump sum" timber sale.
- Buyer will have **18 months** from signing of timber sale agreement to complete all harvest and clean-up activities.
- Sale Tour Guided tour of sale area will be conducted October 16th, 2024. Meet at DeHart Reservoir parking lot along Rt 325 at 10:30 am. Please confirm your attendance by calling Mike Wolf at (814) 659-1280. Tour will only take place if interested parties call to confirm attendance. This is a secure facility. If you are not able to attend the sale tour on October 16th, please contact Mike Wolf to discuss alternative arrangements.
- **Bid Submission** All sealed bids must be mailed to: Capital Region Water, c/o Tanya Dierolf, Chief Strategy Officer, 3003 N. Front Street, Harrisburg, PA 17110. Print "Timber Sale Bid" on outside of envelope. **No fax, email, or hand-delivered bids will be accepted.** Capital Region Water will open bids at 1:00 pm on Thursday, November 7th, 2024. If you submit a bid and are interested in the bid opening, contact Tanya Dierolf at tanya.dierolf@capitalregionwater.com for instructions to join virtually. Bid results will be posted on Capital Region Water's website at https://capitalregionwater.com within 1 week after bid opening.
- A <u>6-page Harvesting Plan (see pages 7-12 below)</u> contains important information about this timber sale. Please familiarize yourself with the 6-page Harvesting Plan before you submit the bid sheet. You will notice that the Harvesting Plan details haul road/landing improvement work that is expected of the Buyer. All haul road/landing improvement work should be factored into your bid amount.

REQUIREMENTS for INSURANCE / SAFETY / EROSION CONTROL PLAN

INSURANCE

Prior to signing the forest products harvest agreement with Capital Region Water, the successful bidder must provide: a certificate of public liability insurance naming Capital Region Water and Appalachian Forest Consultants, LLC as "Additional Insured", with a carrier acceptable to CRW, with limits of not less than one million (\$1,000,000) dollars for injury or death to one person, two million (\$2,000,000) dollars for injury or death to more than one person, and one hundred thousand (\$100,000) dollars for property damage. Bidder shall further carry adequate workmen compensation and occupational disease coverage, as provided under the laws of the Commonwealth of Pennsylvania, upon all employees brought upon the premises. Bidder further agrees to indemnify, protect and save harmless Capital Region Water and Appalachian Forest Consultants, LLC from any and all damage, cost or expense arising out of or for injuries to persons or damage to property occasioned by or resulting from or growing out of timber harvest operations covered this Agreement. Bidder also agrees to waive all rights of subrogation.

SAFETY

Prior to signing the forest products agreement with Capital Region Water, the successful bidder must provide: A forest products harvesting hazard analysis and risk assessment, along with a health and safety plan.

EROSION CONTROL

After familiarization with harvest area(s), and prior to felling, skidding and hauling forest products, the successful bidder will prepare and provide, (to Appalachian Forest Consultants, LLC): a comprehensive soil erosion / sedimentation control plan, along with a site reclamation plan.

NOTE: Proof of Insurance, proof of "additional insured" on COI, Hazard Analysis/Risk Assessment/Health and Safety Plan, and Erosion & Sedimentation Plan must all be satisfactorily completed and approved by CRW before a fully executed Timber Sale Agreement can be furnished.

Bid Form for Timber Sale MU 16:

All bids should be submitted using this Bid Form – Follow Bid Submission instructions on Page 4.

Questions: Call Mike Wolf Phone: (814) 659-1280

Email: mike.wolf.afc@gmail.com

CAPITAL REGION WATER

STAND 16

HARVESTING PLAN

July 2024

TREATMENT GOAL: Treatment in Stands 16 will be an Improvement Thinning. Stand 16 has not been managed before with a timber harvest. The focal point of this treatment is to remove the pulpwood, low grade sawtimber, along with larger diameter sawlogs of poor health. Abundant regeneration of white oak, red maple, red oak, and other desirable seedlings have accumulated on the forest floor. The thinning will result in improving sunlight conditions to the forest floor to foster further development of these seedlings into a competitive state. This timber sale is being done in conjunction with other nearby treatment blocks associated with improving habitat for songbird species in decline and many other species of wildlife. Residual basal area will average about 80 square feet/acre, consisting of reserved hemlock, hickory, white oak, scarlet oak, red oak, white pine, black gum, and chestnut oak. Bark free snags and den trees of various species will also make up the reserve basal area.

CURRENT CONDITIONS: The sale area for Stand 16 is broken up into 6 small blocks (see map) depicted with a red boundary line around each block. Each block occupies a small hilltop area separated between spring buffers located outside of the block boundary. Total acreage for the blocks is approximately 25 acres. There are not any "no harvest" stream/spring buffers within the sale block boundaries. Stand 16 is a maturing oak/pine stand dominated by white oak, with lesser amounts of scarlet oak, red maple, tulip poplar, white pine, hemlock, birch, red oak, black oak, and chestnut oak. Over the past 10-20 years, small volumes of white oak and chestnut oak have died, likely due to periodic events of spongy moth, forest tent caterpillar, oak anthracnose, changing ground hydrology and formation of wet zones and springs in certain areas.

Within Stand 16, basal area of sawtimber to be harvested is 24.3 square feet, dominated by white oak, tulip poplar, scarlet oak, red maple, black oak, and birch.

Regeneration in Stands 16 is dominated by established and advanced white oak, red oak, red maple, tulip poplar, hemlock, white pine, and birch. Much of the desirable Oak regeneration is well established, but not gaining height due to the low shade of suppressed and intermediate pulpwood-sized trees (maple, birch, black gum) and some mountain laurel. Desirable Seedlings observed through a recent Silvah cruise (18 plots) consist of the following per acre: 167 (conifer spp.), 1,667 (established oak), 1,333 (competitive oak), 4,778 (other desirable, being red maple, black gum, sassafras, and aspen). Twenty-two percent of plots contained established oak, while 17 percent contained competitive oak. Eighty-three percent of plots contained species considered tall woody Interference for establishing oak regeneration, primarily consisting of white pine, sweet birch, black gum, red maple, serviceberry, or hemlock. Lowbush blueberry occurs at varying density throughout the sale area, but does not inhibit regeneration. Fifty percent of plots contained mountain laurel at varying density, potentially restricting desirable forest regeneration where present in high density. Witch-hazel is common in the midstory,

but comprises only 17% of plots taken. Fern presence over 30% (threshold of concern for regeneration competition) occurs on 11 percent of plots. Deer browse was most evident on competitive white oak and red maple, but not to the point where these seedlings are losing ground. Deer abundance is rated as "Low". Overall, 65% of plots are stocked with desirable established regeneration, and 65% are stocked with competitive regeneration, mostly in yellow poplar, oak, conifers, red maple, black gum, and sassafras. Given the low intensity harvesting to occur through the thinning, abundant seed source in the residual canopy, low deer pressure on seedlings, and release of existing regeneration from low shade, it is likely this stand will see an increase of established oak, conifers, and other desirable seedlings into a competitive state of growth a few years after harvest. In addition, barring major attacks on parent trees from spongy moth and other defoliators, additional acorns and other seed will germinate into new and established seedlings over the next several years, further increasing the ability of this unit to be regenerated to a healthy new oak dominated stand. Much of the mountain laurel, witch-hazel, and tall woody interference will be impacted through skidding and harvesting, effectively reducing vigor through breakoff and breakdown of stems during the harvest process. In addition, mineral soil exposed due to harvest equipment will prepare a sound soil bed for germinating acorns. Fern density is not a major concern except in a few spots. Most of the fern areas have established oak regeneration found within. Where necessary post-harvest, fern can be treated with an Oust only herbicide treatment to kill fern and release seedlings. Slope is gentle to moderate in all areas of the sale.

Japanese Stiltgrass was found on one plot and has been treated with herbicide. Roadside areas immediately adjacent to new haul road and landing locations have been treated to reduce moving nearby Stiltgrass into the stand following harvest.

HARVESTING: Sale access entry points are located along State Route 325, beginning approximately 10.3 miles east of the intersection of State Routes 325 and 225 just north of the town of Dauphin. The sale is located immediately south of Route 325, with the eastern portion of the sale area in Stand 16 located within 150 yards west of a large gravel parking lot owned by Capital Region Water. Six different landings will be used for this timber harvest, each associated with a different harvest block. Landing and block locations can be viewed on the map. Given the relatively small acreage associated with each block, and desire to minimize landing and haul road size, the harvest in Stand 16 will require that no mechanized harvest equipment be used. Cable or grapple skidders are to be used for skidding, with hand felling (Chainsaw) operations only in place. Only Triaxle log trucks will be permitted to be used for hauling.

The Buyer must coordinate with PennDot for construction of new haul roads (Blocks 2, 3, 5 and 6) leading onto Route 325 prior to commencement of construction activities. For specifics on haul road and landing construction, please refer to the "Haul Roads and Landing Construction" section of this Harvesting Plan. Adding rock/shale for landing stabilization and haul road performance will be on an as needed basis and determined in consultation with the Forester. Haul Road improvements are noted as an estimate for each Haul Road noted in the Haul Roads and Landing Construction section. Final determinations will be made in consultation with the Forester and winning Buyer onsite.

The sale boundary consists of a double diagonal slash of Blue paint on trees for each block. Boundary trees marked with diagonal blues slashes are reserved and must not be cut. Sale blocks are separated and located so as to avoid any stream buffer crossings. Skid trails should be planned out in an effort to minimize damage to reserve trees within the sale area. Tops felled across the sale boundary lines may

be left as is, **EXCEPT IN BLOCK 6.** The western sale boundary in Block 6 abuts PA Game Commission land. All trees felled across this western boundary line must have tops immediately pulled back to within the established Capital Region water sale boundary line – leaving the property line shared by CRW and PGS clear.

Within all blocks for Stand 16, all trees 4" DBH up to 12" DBH are to be felled excepting hemlock. All sawtimber trees greater than 12" DBH marked with a blue spot on the north and south sides of the tree, and corresponding stump mark, are also to be harvested. All trees with a blue X mark on the north and south sides of the tree, with corresponding blue stump mark, were marked as culls and not tallied by the Forester. These cull trees are to be felled and may be removed by the Buyer if desired. All other standing dead snags within the stand must be retained for wildlife value, unless they pose a hazard to the harvest operator, in which they can be felled but retained at the felling site. All reserve trees (sawtimber sized trees not marked with blue paint) are to remain with skinning damage kept to a minimum.

Within Stand 16 across all blocks, an estimate of 2,823 board ft/acre of sawtimber (International 1/4) is to be removed, primarily consisting of white oak, scarlet oak, tulip poplar, black oak, red maple, and birch. Approximately 10 tons of hardwood pulpwood/acre can also be removed. Total estimated volume to be harvested in the stand is **70,599 bd feet** of sawtimber and **248 tons** of hardwood pulpwood. Minimal tonnage of softwood pulpwood (White Pine) will be removed. Volume estimates tallied used the International ¼ FC 78 Log Rule, with a 100% tally on all sawtimber trees 12" and greater. Pulpwood estimates were calculated using a fixed 1/10th acre plot cruise with 10 plots taken throughout the blocks.

EXPECTED FUTURE CONDITIONS: Stand 16 will result in a high quality, maturing evenly stocked stand dominated by white oak, scarlet oak, white pine, hemlock, and red oak in the canopy, with abundant accrued advanced oak, maple, pine, and serviceberry regeneration on the forest floor.

HARVEST SEQUENCE: Improvements to the existing landing and haul road in Block 4 should be completed prior to harvest entry for any block. New landing construction for Blocks 1, 2, 3, 5, and 6, along with new Haul Roads (Blocks 2, 3, 5, 6) should be completed prior to harvest entry for any block. The winning bidder will be required to establish short haul road sections (Blocks 2, 3, 5, 6) by opening access with a bulldozer to the designated landing, grading, and depositing rock/shale on the haul road base and on the landing sites as needed. Once landings are prepared, harvesting may begin. Harvesting may begin at landing of choice by the logging crew/buyer.

HAUL ROADS/LANDINGS CONSTRUCTION AND REQUIREMENTS: Estimated Improvements are as follows for each Landing and Haul Road per Block (These are ESTIMATES ONLY):

Block 1 (eastern most block), Existing Haul Road, New Landing: requires a new landing to be constructed, with an established haul road in place behind a yellow cable gate entering the block. The proposed new landing is bounded by trees with the marker "L1" in burnt orange paint. Any tree marked with "L1" with a blue paint spot on the north/south side of the tree and stump marked may be harvested. Trees marked with "L1" without a blue spot are reserved and must be protected from damage unless discussed previously with the Forester.

Secure meeting with PennDot to construct the haul road and entrance to Route 325. Haul Road width is 15 feet. Clear trees brush, and organic soil down to mineral soil for the new landing. Add ½ load of #3 stone at the entrance to Route 325 for knocking mud off tires. The Yellow Cable must be closed and locked at the end of each day when onsite. Keys will be provided.

a: Construction Time involved: 4 hours

b. Equipment: D6 dozer, Dumptruck,

b: Materials: Operator Time in Dozer \$80/hour x 4 hours-\$320.00, 1/2 truckload of #3 rock

@\$750/load-\$375.00

Total Cost estimate: \$695.00

Block 2 (New Haul Road and Landing) requires a new landing on the east side of the block, with a new haul road to be constructed 100 feet into the center of the landing. The haul road entrance is denoted by burnt orange paint placed on a large limb leaning up against Mountain Laurel near the road side. The new landing is denoted with burnt orange "L2" markers on boundary trees. Any tree with an L2 and blue spot are to be removed along with trees internal to the landing boundary. Trees with only an "L2" are reserved and must be protected from damage unless discussed with the Forester.

Secure meeting with PennDot to construct the haul road and entrance to Route 325. Haul Road width is 15 feet. Clear trees brush, and organic soil down to mineral soil for the haul road and new landing. Add ½ load of #3 stone at the entrance to Route 325 for knocking mud off tires.

Construction Time involved: 6 hours

b. Equipment: D6 dozer, Dumptruck,

b: Materials: Operator Time in Dozer \$80/hour x 6 hours-\$480.00, 1/2 truckload of #3 rock

@\$750/load-\$375.00

Total Cost estimate: \$855.00

Block 3 (New Haul Road and Landing) requires a new landing and haul road on the east side. Haul Road will cover a 100 foot distance to the center of the landing location. Entrance into the stand from the new haul road is marked with a bright orange stripe located on a stump near Route 325. Bright Orange "L3" markers are on landing boundary trees. Trees with an "L3" and blue spot are to be harvested. Trees with only an "L2" are reserved and must be protected from damage unless discussed with the Forester.

Secure meeting with PennDot to construct the haul road and entrance to Route 325. Haul Road width is 15 feet. Clear trees brush, and organic soil down to mineral soil for the haul road and new landing. Add 1 load of #3 stone at the entrance to Route 325 to raise the entrance grade and for knocking mud off tires.

Construction Time involved: 6 hours

b. Equipment: D6 dozer, Dumptruck,

b: Materials: Operator Time in Dozer \$80/hour x 6 hours-\$480.00, 1 truckload of #3 rock @\$750/load-\$750.00

Total Cost estimate: \$1,230.00

Block 4 (Existing Haul Road and Landing) has an existing landing and uphill haul road located on the west side of the block behind a yellow cable gate owned by Capital Region Water. Clear brush and organic soil down to mineral soil on the existing landing. Grade and add #3 rock as needed on the existing haul road to stabilize. The haul road distance from the landing to Route 325 is approximately 150 feet in distance.

Add 1 and 1/2 load of #3 stone to the existing haul road and at the entrance to Route 325 for knocking mud off tires. Pack stone on haul road with dozer.

Construction Time involved: 6 hours

b. Equipment: D6 dozer, Dumptruck,

b: Materials: Operator Time in Dozer \$80/hour x 6 hours-\$480.00, add 1 and 1/2 truckload of

#3 rock @\$750/load-\$1075.00

Total Cost estimate: \$1,565.00

Block 5 (Existing Haul Road, New Landing) requires opening an existing berm on the east side of the block that leads to an old Haul road established on the north side of the block. A new landing will be prepared, surrounded by trees marked with burnt orange "L5" markers on landing boundary trees. Trees internal to the landing boundary and any trees with a blue spot are to be removed. Trees not marked with a blue spot, but with an "L5" marker are reserved and must not be cut or damaged unless previously discussed with the Forester.

Secure meeting with PennDot to construct the haul road and entrance to Route 325. Open old berm to existing haul road, clearing debris and brush off the existing haul road along with debris, brush, and trees down to mineral soil on the new landing. Add 1/2 load of #3 stone to the existing haul road at the entrance to Route 325 for knocking mud off tires.

Construction Time involved: 6 hours

b. Equipment: D6 dozer, Dumptruck,

b: Materials: Operator Time in Dozer \$80/hour x 4 hours-\$320.00, 1/2 truckload of #3 rock @\$750/load-\$375.00

Total Cost estimate: \$695.00

Block 6 (New Haul Road and Landing) requires construction of a new landing and new haul road. The haul road angles approximately 150 feet into the block, denoted by orange ribbon. Blue "L6" marks are

denoted on landing boundary trees. Trees internal to the landing boundary and any trees with a blue spot are to be removed. Trees not marked with a blue spot, but with an "L6" marker are reserved and must not be cut or damaged unless previously discussed with the Forester.

Secure meeting with PennDot to construct the haul road and entrance to Route 325. Haul Road width is 15 feet. Clear trees brush, and organic soil down to mineral soil for the haul road and new landing. Add ½ load of #3 stone at the entrance to Route 325 for knocking mud off tires.

Construction Time involved: 6 hours

b. Equipment: D6 dozer, Dumptruck,

b: Materials: Operator Time in Dozer \$80/hour x 6 hours-\$480.00, 1/2 truckload of #3 rock

@\$750/load-\$375.00

Total Cost estimate: \$855.00

TOTAL ESTIMATED IMPROVEMENT COSTS FOR TIMBER SALE: \$5,895.00

General Location Maps:

