

Offset Project Data Report for the Initial Reporting Period Bluesource – Allegheny Improved Forest Management Project

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OPR Staff Use Only	Date Report Received	OPR Tracking Number:	Date Report Reviewed	OPR Staff Use Only

Part I. Entity Submitting Report

This form being submitted by the Authorized Project Designee (APD).

Completed By: Joshua Strauss

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Date Form Completed: 10/2/2018

Form Version: 4.0

Part II. Offset Project Information

Project Name: Bluesource - Allegheny Improved Forest Management Project

OPD Project ID: ACR276

ARB Project ID: CAFR5226

City: Horner

State: West Virginia

Zip: 26372

Registry: American Carbon Registry

Compliance Offset Protocol: U.S. Forest Projects

Version: November 14, 2014

Start Date: 10/27/2015

Reporting Period End Date: 4/30/2017

Crediting Period: 10/27/2015 to 10/26/2040

The commencement date is signified by the submittal of the project listing form ACR. Per page 15 of the ARB Forest Protocol, an IFM project's commencement date can be signified by the submittal of the project's listing information.

Part III. OPO/APD Information

Offset Project Operator

OPO Name: Allegheny Rural NMTC Forestlands, LLC

CITSS ID#: CA1940

Mailing Address: P.O. Box 9162, Chapel Hill, NC 27515

Contact Person: Kaarsten Turner- Dalby

Phone Number: 303-838-2515

Email: kaarsten@forestlandgroup.com

Authorized Project Designee

APD Name: Blue Source LLC

APD's CITSS ID#: CA1278

Contact Person: Joshua Strauss

Mailing Address: 1935 E Vine Street, Suite 300, Murray, UT 84121

Phone Number: 949-233-1501

Email: jstrauss@bluesource.com

Part IV. Land Ownership

1. **Whether the Offset Project Operator is the owner in fee for the project area.** Yes
 - a. **If yes, provide documentation (e.g. deed of trust, title report) showing the Offset Project Operator's ownership interest in the property and its interest in the trees and standing timber on the property.**

Please see provided deeds. (Provided separately for verification purposes.)

2. **Forest Owners:**
Allegheny Rural NMTC Forestlands, LLC
3. **Offset project type (reforestation, improved forest management, or avoided conversion).**
Improved Forest Management
4. **Indicate if the offset project occurs on public or private lands, and further specify if the offset project occurs on any of the following categories of land:**
Private Lands
 - a. **Land that is owned by, or subject to an ownership or possessory interest of a Tribe;** No
 - b. **Land that is "Indian lands" of a Tribe, as defined by 25 U.S.C. §81(a)(1);** or No
 - c. **Land that is owned by any person, entity, or Tribe, within the external borders of such Indian lands.** No

Part V. Offset Project Area

1. **Latitude/longitude coordinates:** 38.45° N/ -80.97° W
2. **Project Area Assessment Areas**

Supersection	Assessment Area	Acres
Allegheny & North Cumberland Mountains	Allegheny & North Cumberland Mountains Cove Forests	9,260
	Allegheny & North Cumberland Mountains Mixed Hardwoods	590
	Allegheny & North Cumberland Mountains Northern Hardwoods	26,446
	Allegheny & North Cumberland Mountains Oak-Hickory	5,087
Southern Allegheny Plateau	Southern Allegheny Plateau Oak-Hickory	440
	Southern Allegheny Plateau Upland Hardwoods	988
	Total	42,812

*Subtotals may not sum to total due to rounding.

3. Identify and describe the governing jurisdiction(s) applicable to the Project Area.

Governing Jurisdiction: Clay County is located in the Fourteenth Judicial Circuit of West Virginia.

4. Describe how the Project Area was determined.

The project area was determined using GIS to include 42,812 forested acres owned by Allegheny Rural NMTC Forestlands, LLC (referred to as Allegheny throughout the OPDR).

Allegheny owns in total 46,673 acres. Non-forested acres were removed from the project, including mines, roads, right-of-ways, and streams. All excluded areas were removed within a minimum mapping unit of 2.5 acres. After these areas of non-forest were excluded, the total project area included 42,812 acres. To ensure no neighboring properties encroached into the Project Area, ownership extent has been confirmed by property managers and will be further verified in the field.

To ensure project boundaries are accurate, Allegheny's land managers continually survey the property and update shapefiles with the new survey as soon as they are provided a survey plat from the professional surveyor. The project area boundary was created using the most up-to-date shapefile at the time of the project's commencement.

It is important to note, that in West Virginia, publicly available PLSS data is not available. Further, according to regional professional foresters, in the Appalachian region, fee-based county tax mapping information is not trustworthy for reliable ownership verification – either geographical placement of a parcel, shape or alignment of a parcel, or even the existence of a parcel.

A supporting georeferenced shapefile has been provided separately for verification purposes.

5. Existing land cover and land use

Land Cover: The Project Area's land cover is mainly hardwood forests. All non-forest acres will be removed from the project.

Land Use: The current land use is commercial forestry.

6. Forest vegetation types

The five main forest types across the property are Cove Forests (24%), Mixed Hardwoods (2%), Northern Hardwoods (56%), Oak-Hickory (14%), and Upland Hardwoods (2%).

7. Site class

As currently assessed, 100% of the property is considered low site class as the annual forest productivity (cubic feet/ acre) is less than 120 cubic feet/ acre. Site class was determined using NRCS soil data and the associated NRCS Forestland Productivity reports.

8. Land pressures and climate zone/classification

Though the region is widely used for timber production, there are several non-timber land pressures including coal, oil, gas, and wind production.

Climactic zone: The project area falls within climactic zone 7b on the USDA plant hardiness zone map.¹ Average annual extreme minimum temperatures for this zone range from 5 to 10 degrees Fahrenheit. In West Virginia's mountains, the growing season is about 140 days per year with a mean annual precipitation of 40 to 50 inches distributed fairly evenly throughout the year. The normal daily average temperature in the summer is about 75 degrees Fahrenheit and in winter, about 45 degrees Fahrenheit.

9. Historical land uses, current zoning, and projected land use within project area and surrounding areas

This property has been historically used for commercial timber. The land is projected to remain as working timberland throughout the duration of the current forest ownership. The project area falls into unincorporated areas of Clay County, West Virginia, which has no zoning classification.

According to AF Rural NTMC LLC, "The AF Rural NMTC property has been exposed to various forms of timber management since its existence. The property has always been an industrial property with coal mining, oil and gas development and timbering activities.

Some records indicate that timbering started on the property around 1901 with large contracts to local sawmills that harvested the best large, high quality timber. Georgia Pacific Corporation operated a sawmill at Swandale until 1977 when the operations ceased due to failure to comply with contractual obligations.

In the Pittston and Pegasus area, ownership focused on the coal resource and timber management was a secondary concern. There were timber cutting contracts with various local sawmills and all contracts imposed strict diameter limit cutting. Virtually no cull trees were cut and it was logger's choice on what was harvested. These Pittston-Pegasus contracts expired in 1991.

In 1991 the Barringer family purchased the property and started practicing intense forest management. Coastal Lumber harvested timber with contracts that were supervised by Barringer management that contained variable diameter limiting cutting with all cull trees being cut. This occurred until 1994 when improvement type harvests were incorporated. Stands were marked using individual tree selection with the emphasis to improve stand quality and yields. Trees that were mature, poor form, less desirable, forest fire damaged and culls were removed."

10. Indicate whether the project will employ a Qualified Conservation Easement.

No.

Part VI. Offset Project Eligibility

- 1. A statement as to whether any GHG reductions or GHG removal enhancements associated with the Project Lands have ever been listed or registered with, or otherwise claimed by, another registry or program, or sold to a third party prior to listing, including;**
 - a. Have any lands within the Project Area ever been listed or registered with an offset project registry or program in the past?**
 - b. Have greenhouse gas emission reductions or removal enhancements associated with lands within the Project Area been credited or claimed for the purpose of greenhouse gas mitigation or reduction goals, whether in a voluntary or regulatory context?**
 - c. If yes, identify the registry or program (include vintages and reporting period).**

None of the Project Lands have ever been listed, registered with, or otherwise claimed by, another registry or program. No greenhouse gas emission reductions or removal enhancements associated

¹ <http://planthardiness.ars.usda.gov/PHZMWeb/>

with lands within the Project Area have ever been credited or claimed for the purpose of greenhouse gas mitigation or reduction goals, whether in a voluntary or regulatory context.

2. **A statement as to whether the project is being implemented and conducted as the result of any law, statute, regulation, court order, or other legally binding mandate? If yes, explain.**

The project is not being implemented and conducted as the result of any law, statute, regulation, court order, or other legally binding mandate.

3. **Declaration that the offset project does *not* employ broadcast fertilization.**

The offset project does not employ broadcast fertilization.

4. **If the Forest Project is located on public land, a description and copies of the documentation demonstrating explicit approval of the offset project's management activities and baseline including any public vetting processes necessary to evaluate management and policy decisions concerning the offset project.**

This project does not occur on public lands, so therefore this section is not applicable.

5. **If the Forest Project is located on the following categories of land, a description and copies of documentation demonstrating that the land within the Project Area is owned by a tribe or private entities:**

This project does not occur on tribal lands, so therefore this section is not applicable.

6. **If commercial harvesting is either planned or ongoing within the Project Area, a description of how the Forest Owner satisfies one of the three requirements for employing and demonstrating sustainable long-term harvesting practices on all of its forest landholdings (refer to Section 3.8.1).**

☐ Not applicable; no commercial harvesting is occurring within the Project Area.

☒ Third party certification under the Forest Stewardship Council, Sustainable Forestry Initiative, or Tree Farm System, whose certification standards require adherence to and verification of harvest levels which can be permanently sustained over time.

☐ Adherence to a renewable long-term management plan that demonstrates harvest levels which can be permanently sustained over time and that is sanctioned and monitored by a state or federal agency.

☐ Employ uneven-aged silvicultural practices and maintain canopy retention averaging at least 40% across the forest, as measured on any 20 acres within the entire forestland owned by the Forest Owner, including land within and outside of the Project Area (areas impacted by Significant Disturbance may be excluded from this test).

7. **A description of how the offset project meets (or will meet) the definition of "Natural Forest Management" (refer to Section 3.8.2), including:**

a. Composition of native species;

Species	Total Live Basal Area (Sq. ft.)	Frequency
Ailanthus	0.15	0%
Am Hornbeam, Musclewood	0.58	1%
American Basswood	3.51	3%
American Beech	8.09	7%
American Elm	0.03	0%
Bitternut Hickory	0.48	0%
Black Cherry	0.17	0%
Black Locust	0.27	0%
Black Oak	2.92	3%
Black Walnut	0.21	0%
Blackgum	2.27	2%
Chestnut Oak	12.85	11%
Cucumbertree	2.16	2%
E. Hophornbeam	0.03	0%
Eastern Hemlock	6.45	6%
Eastern Redbud	0.07	0%
Flowering Dogwood	0.10	0%
Magnolia Spp.	0.16	0%
Mockernut Hickory	1.51	1%
Northern Red Oak	4.18	4%
Norway Spruce	0.04	0%
Other	0.01	0%
Paulownia, Empresstree	0.09	0%
Pawpaw	0.08	0%
Pignut Hickory	6.54	6%
Pin Cherry	0.02	0%
Pitch Pine	0.18	0%
Red Maple	14.21	13%
River Birch	0.13	0%
Sassafras	0.33	0%
Scarlet Oak	3.65	3%
Serviceberry Spp.	0.08	0%
Shagbark Hickory	0.73	1%
Silver Maple	0.02	0%
Slippery Elm	0.19	0%
Sourwood	1.71	2%
Sugar Maple	11.17	10%
Sweet Birch	2.93	3%
Sweetgum	0.78	1%

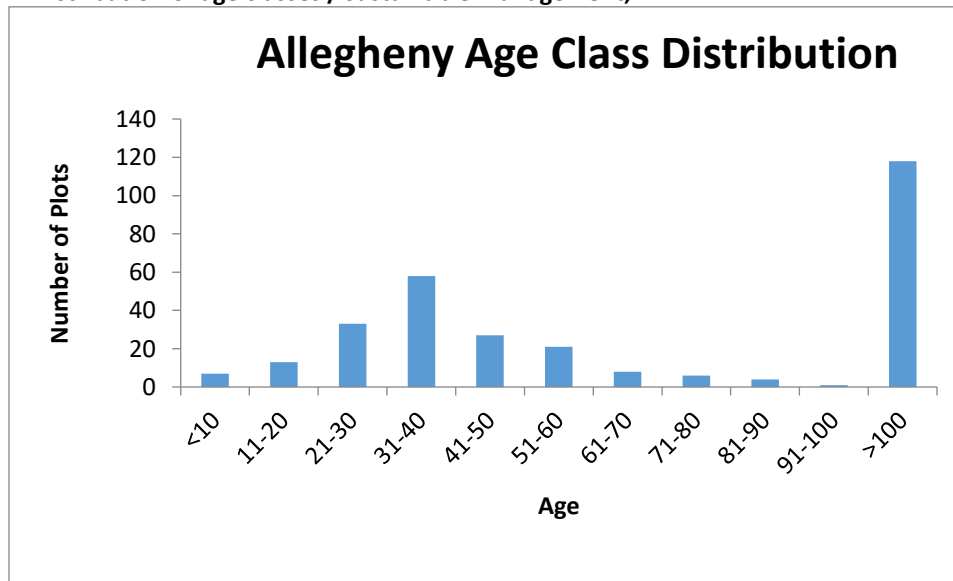
Sycamore	1.69	1%
Virginia Pine	0.14	0%
White Ash	0.51	0%
White Oak	8.86	8%
Yellow Birch	0.86	1%
Yellow Buckeye	0.22	0%
Yellow-Poplar	11.43	10%
Total	112.77	100%

*Total may not sum to 100% due to rounding

The project area naturally consists of a mixed species distribution where no single species' prevalence, measured as the percent of basal area of all live trees in the Project Area, exceeds the percentage value of standing live carbon shown under the heading 'Species Diversity Index' in the Assessment Area Data File. The weighted average species diversity index across the Project Area % is 69%. As seen in the table above, the most prevalent species on the property is Red Maple (13%), which falls well below 69% threshold.

- i. **Explain how the project will demonstrate a trend toward achieving the Species Diversity Index of native species and meet this requirement within 25 years.** NA
- ii. **If the Project Area does not naturally consist of a mixed species distribution: Will or have you provided a written statement from the government agency in charge of forestry regulation in the state where the project is located stipulating that the Project site is not capable of meeting the requirement of mixed species distribution.** NA

b. Distribution of age classes / sustainable management;



Across the entire Project Area, which is smaller in acreage than the watersheds noted in Part X. Attachment E.4., less than 6.8% of the inventories plots were determined to be 20 years old or younger.

c. Structural elements (standing dead wood);

Live C	Dead C	% Standing Dead
42.0	0.6	1.4%

As of the end of the first reporting period, standing deadwood accounted for 0.6 mt C/acre or 1.4% of the total carbon in standing live trees throughout the property. There are no portions of the property that are currently subject to salvage harvesting operations. As of the start date, the project did not meet the 1 mt C/acre structural elements criteria of the COP for U.S. Forest Projects, but the Project will continue to progress towards meeting this criteria based on the standing deadwood retention requirements laid out in the Project's forest management plan. In the Allegheny Management Plan, snags will be retained and recruited, continuing progress towards meeting the structural elements criteria.

- 8. On a watershed scale up to 10,000 acres (or the Project Area, whichever is smaller), projects must maintain, or make progress toward maintaining, a maximum of 40% of the project's forest lands in ages that are less than 20 years old. (Areas impacted by Significant Disturbance are exempt from this test until 20 years after reforestation of such areas.) Does the acreage within this project meet this requirement?**
Yes. Please see the Modeling Explanation document, provided separately for verification.

- a. Explain how the project demonstrates continuous progress toward meeting this requirement within the next 25 years.** NA

- 9. A description of the management activities that will lead to increased carbon stocks in the Project Area, compared to the baseline.**

As stated in the Allegheny management plan, "the goal of timber management is to maximize the value, quality, and growth potential of the entire forest. Harvest strategies will focus on capturing the value of financially mature timber through mainly improvement type harvests. Regeneration harvests with retention will also be utilized where the stand has been degraded, creating residual basal areas targeting 20 square feet per acre. By concentrating treatments on stands having a substantial element of mature timber, AF Rural NMTC Ten-Year Management Plan." As stocking shifts from the small to the large sawtimber class, total carbon levels maintained across the project area increase.

Thus, the management strategies utilized in the project scenario will maintain increased stocks above the baseline over time.

- 10. Does the Project Area have a canopy cover that is greater than 10 percent?**

Yes. See Attachment F for supporting documentation

- 11. Indicate how the offset project meets the definition of Natural Forest Management per Table 3.2 in the Compliance Offset Protocol US Forest Offset Projects, November 14, 2014:**

- a. Does the project consist of at least 95% native species based on the estimated sum of carbon in the standing live carbon pool? Improved Forest Management Projects are assessed using estimates of basal area per acre.** Yes

Part VII. Carbon Stock Inventory

- A. Provide a description of the inventory methodology used to quantify carbon stocks for each required carbon pool in the forest project's offset boundary. The inventory methodology must describe the**

information required in Appendix A.3 of the Compliance Offset Protocol U.S. Forest Projects, November 14, 2014.

Inventory Methodology

For all applicable carbon pools, the following inventory methodology was employed:

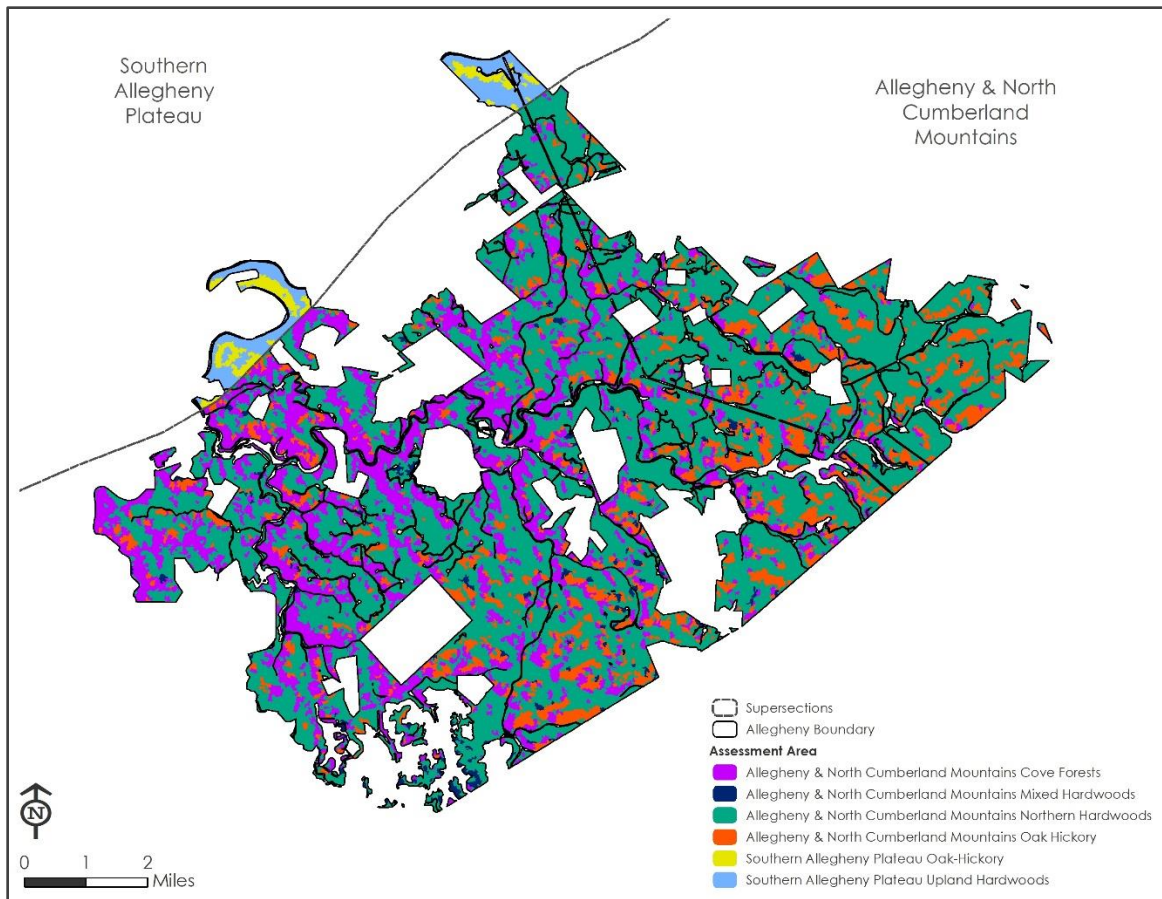
Project Boundary: The offset Project Area was determined using the most recent geospatial file of the property. All roads, right-of-ways, major water bodies, and other non-forested areas were removed from the Project Area. The minimum mapping unit for the project area was 2.5 acre (or approximately 1 hectare) (Knight and Kunetta 2003). Some forested areas were removed due to management considerations.

Pre-Sampling Stratification: The original inventory design was laid out based on the landowner's existing cover types, grouped into the following 4 groups: BIRCH, SYC 61+, WO, BO, NRO 61+, Young, and YP, WO, NRO 61+. However, when taking into account the variability in each stratum (to minimize sampling error), as well as the original verification considerations (having enough plots to pass sequential sampling), different numbers of plots were placed into each stratum. For further specification, please see the "Allegheny_Modeling_Explanation_7_17_18" document, provided separately for verification.

Post-Sampling Stratification: The Project was stratified into six distinct strata. The stratification is based on the most recent stands geospatial file and inventory in order to reduce the sampling error below 5.1%. Stratification was conducted post-inventory using remote sensing techniques described in the "Allegheny_Assessment_Area_Stratification_7_17_18" provided separately for verification. The resulting strata acres and spatial distribution are shown below.

Strata	Acres
Allegheny & North Cumberland Mountains Cove Forests	9,260
Allegheny & North Cumberland Mountains Mixed Hardwoods	590
Allegheny & North Cumberland Mountains Northern Hardwoods	26,446
Allegheny & North Cumberland Mountains Oak-Hickory	5,087
Southern Allegheny Plateau Oak-Hickory	440
Southern Allegheny Plateau Upland Hardwoods	988
Total	42,812

*Sub-totals may not sum to 100% due to rounding.



Plot Number and Locations: A network of systematic permanent inventory plots were installed across the project area. The Fishnet Grid tool in ArcGIS was used to create a grid for each of the cover types provided in the initial stand file provided by the landowner. The initial stand file included the following cover types: Birch, White Oak - Black Oak - Red Oak, Young, and Yellow Poplar - White Oak - Red Oak. Using these four cover types, four fishnets were created and overlapped with each stand type for a total of 296 plots sampled across the entire project area, placed at least 74.4 feet apart, ensuring no overlapping plot boundaries. The final 296 plots sampled were the number needed to reach <5.1% sampling error.

Monumentation: Permanent inventory plot centers were monumented with a rebar pole pounded into the ground and topped with a small rebar cap flush with the ground.

Sampling Method: Permanent, fixed-radius plots were established across the Allegheny property to facilitate precise tracking of individual tree growth and ease of verification. At each plot location, a fixed-radius plot was established to measure all trees greater than or equal to 5.0" in diameter at breast height (DBH); and a sub-plot was taken to capture live woody trees and saplings less than 5" (1.0 to 4.9" DBH). This plot design gave forest managers the opportunity to consistently track the growth and development of specific trees over an extended timeline and will allow for improved ease of plot location during field work and site verifications.

The protocol defines trees as "A woody perennial plant, typically large and with a well-defined stem or stems carrying a more or less definite crown with the capacity to attain a minimum diameter at breast height of 5 inches and a minimum height of 15 feet with no branches within 3 feet from the ground at maturity." As a result, inventory crew measured all species ≥ 1 " DBH that met this definition. For all trees in the fixed-radius plot, species, status, DBH (to the nearest tenth of an inch), 4" top height (to the nearest foot or $\pm 5'$ for difficult to measure trees), phantom 4" top height (using nearby live trees of same species

and DBH), and decay class (for snags) were measured. In the subplot, species and DBH were recorded for each eligible tree. Defect for live trees was estimate by dividing the tree into thirds based on total original height and weighted according to the protocol. Defect for dead trees used the same method except considered defect in the bole only instead of the whole tree. Measurements for DBH and height of irregular trees used the methods outlined in the Forest Inventory and Analysis National Core Field Guide Version 7.1. Further specification for field measurements are provided in the "Allegheny Carbon Inventory Methodology_7_17_18" document.

Statistical Standard: Mean volume estimates (e.g. above ground carbon per acre) for the ownership were reported with a minimum statistical precision of $\pm 5\%$ of the mean at the 95% confidence level. These objectives may be adjusted for more or less precision based on a property-specific analysis of data collection cost relative to return.

Data Collection Materials: Data was collected on hand held electronic data recorders. If data recorders were not available, field data was collected on paper tally sheets and manually entered into a computer for data analysis. All data sheets were scanned and sent to Blue Source.

Field personnel used the following equipment for obtaining forest-carbon inventory data: 75' or longer Logger's Tape designed to measure in 10ths of feet and 10ths of inches for diameter, clinometer capable of measuring height in feet and slope angle, laser rangefinder capable of measuring height to the nearest $\pm 1'$, as well as distance ($\pm 1'$), electronic data recorder (EDR), compass, GPS handheld unit (capable of 3 meter accuracy) with point locations, Distance Measuring Equipment (DME) or rangefinder, cover type maps and aerial Photographs, pencils and permanent marker, flagging, aluminum tree tags, aluminum nails (cannot contain iron as this may damage the tree), hammer, tube paint or spray paint for marking DBH measurement and tree number, rebar poles and caps for marking plot centers (.5 in diameter, 2 ft. length), species code list, paper tally sheets (in case EDR fails), overview and point location maps.

QA/QC Field Procedures: At least 5% of the plots were checked by a different forester than cruised the plot, specifically by someone senior to the field crew. This involved full plot measurement to identify any problems with determining in/out trees, species calls, defect measurements, DBH measurements, and height measurements. Any consistent height, species, DBH, or defect errors were resolved by talking with the foresters.

QA/QC Desk Procedures: The following QA/QC approach was designed to ensure that field data, once input, was appropriately managed and maintained, and that subsequent calculations using that data to determine onsite carbon stocks and associated ARBOC issuance were correctly implemented. A three-stage QA/QC process with a defined review group for the project was established, engaging both personnel intimately familiar with all project files and documentation, as well as independent reviewers were able to bring "fresh eyes" to key outputs.

Independent Forester Review: The project implementation team (Blue Source) has a team of foresters with intimate knowledge of the files, models and documents. The development of quantitative components, such as Access databases, FVS model runs and Excel workbooks, were led by one of these foresters. Prior to finalization, a second forester who did not lead development of that component was tasked with a QA/QC review including random examinations and data checks to identify and fix any errors.

Technical Review: Once quantitative outputs were finalized, exported from Access/FVS to Excel, and were ready to be transferred into the Offset Project Data Report (OPDR) and other project documents, an independent manager reviewed these outputs. This individual performed data checks by tracing key outputs back from final ARBOC calculations through the chain of Excel documents to the underlying Access/FVS database.

Senior Management Review: Once outputs were transferred from Excel to the OPDR and other project documents, a senior manager reviews these documents and checks that all quantitative elements have been correctly exported from the underlying workbook. At this stage, the senior manager (or other

individual not involved in document preparation) also reviewed text, grammar and formatting for presentation and accuracy.

Data Processing and Storage: Manually and electronically filed data are stored and archived. Backup copies of all electronically stored data are maintained in a separate data center with scheduled archiving to assure data protection. Future revisions to project documents after initial verification and registration will be clearly identified by saving them as separate files and including the date of revision in any modified documents. All data will be stored on an online cloud storage service as well as on an external hard drive and kept by Blue Source for a minimum of 15 years.

IFM-1 Standing Live:

Please see the “Allegheny Carbon Inventory Methodology_7_17_18” document, provided separately for verification.

IFM-3 Standing Dead:

Measurements for dead trees will include all the same measurements as live trees, as well as decay class (classes 1-5). Please see the “Allegheny Carbon Inventory Methodology_7_17_18” document, provided separately for verification, for additional detail.

IFM-6 Soil (if applicable): Excluded.

IFM-7 Carbon in in-use forest products: NA

No specific inventory processes apply.

IFM-8 Forest product carbon in landfills (if applicable): NA

Forest product carbon in landfills was calculated based on harvest volume data. No specific inventory processes apply.

IFM- 9 Biological emissions from site preparation: NA

IFM-14 Biological emissions/removals from change in harvesting on forestland outside the Project Area:

Calculated using a default 20% “leakage” factor applied to the difference in harvest volume relative to baseline.

IFM-17 Biological emissions from decomposition of forest products:

Biological emissions from decomposition of forest products will be calculated based on standing tree inventory data. No specific inventory processes apply. Biological emissions from decomposition of forest products will be quantified as a component of carbon stored in in-use forest products (IFM-7) and landfills (IFM-8). Please see the “Allegheny Carbon Inventory Methodology_7_17_18” document, provided separately for verification.

Monitoring Plan

Annual monitoring will be carried out to track changes in carbon stocks. The Project Owner will submit annual Offset Project Data Reports and undertake 6-year site verification for 100 years following ARBOC issuance. Annual monitoring reports will contain inventory updates reflecting growth, harvest, and any significant disturbances.

The Project Area will be re-inventoried at least every 12 years. During re-inventory, a subset of the current 296 permanent plots, sufficient to maintain desired inventory confidence statistics, will be visited and re-

measured. Inventories of select portions of the Project Area will be updated periodically in response to natural disturbance or significant forest management activities. Any plots that are subject to harvesting activities or significant disturbances will be reinventoried.

If plot monumentation cannot be found during a re-inventory, the plots will be re-monumented using the same procedures as the original monumentation at the same GPS location of the given plot.

Any updates to the inventory methodology will be approved in advance by a third-party verification body and by ARB, and documented in the project change log.

In addition to inventory sampling, management staff will monitor the general health and condition of the forest forest management activities (e.g. road maintenance, timber harvesting, boundary marking, etc.), typically conducted on primary accessroads and notable bridges/culverts annually.

Each year, the forest carbon inventory and documentation will be updated via the following process:

1. New forest inventory data obtained from scheduled sampling during the previous year will be incorporated.
2. Annual harvests will be carefully tracked based on timber sale data.
 - a. All harvests boundaries will be recorded
 - b. Harvest volumes are recorded with dates and harvest locations, backed with verifiable scale receipts
3. Mining operators are responsible for giving the landowner advance notice of surface operations, any impact of which will be tracked and reported in annual harvest volumes and area as stated above.
4. Inventory data will be updated to account for any significant natural disturbance (e.g. insect infestation, fire, destructive wind storm, etc.).
5. New inventory samples or harvest data, modeling growth, and disturbances using FVS or another approved growth will be incorporated.
6. Any necessary modification to spatial data based on strata boundary adjustments or other changes will be made.
7. Results will be incorporated in the annual OPDR

Potential Pests and Diseases

Most of the insect and disease damage on the property is minimal. There is the occasional defoliation of trees due to loopers, gypsy moth, eastern tent caterpillars, fall webworm, bagworm, black knot in black cherry, and the anthracnose of sycamores. Historical damage has been minimal. Monitoring for the pests described below will be continuous as field personnel travel in and through the property.

Gypsy Moth, *Lymantria dispar*, is potentially the most destructive forest pest threatening the Allegheny Property. Personnel in the Office of Plant and Pest Services predict the frontal wave of the moth to likely arrive to the southern West Virginia region during the next decade. Field personnel will vigilantly monitor the Marmet Property and will help identify outbreaks if they occur. If future defoliation or death occurs the damage will be recorded and reported to the landowner where an assessment will be made and a strategy designed. Pesticide spraying for gypsy moth may be considered.

The emerald ash borer (EAB) is a potentially serious insect pest to the eastern hardwood forests. Reports indicate EAB has quickly spread throughout the state of West Virginia and evidence of mortality is becoming more frequent. The insect will likely have a direct impact to the ash on this property. During harvest preparation, ash trees will be selected for removal in order to salvage the timber before it is lost. The EAB

quarantine is now statewide. In fact, most of the eastern United States is within the federal quarantine limits; so all ash timber can be transported within these boundaries.

Sudden Oak Death (SOD) is also a possible pest on the property even though most of the confirmed cases to date have been located on the west coast and in Canada. Infected plants should be destroyed. While risk for this disease is low, the potential loss is considerable due to the high stocking of oak and alternate ericaceous hosts of the fungus throughout the property. General monitoring will include observing for bark cankers and foliar wilting.

The hemlock wooly adelgid is not considered a serious problem on the property because of very small amount of hemlock growing on the property. General monitoring will observe for the white wooly masses on the tree branches.

The landowner will utilize integrated pest management for the control of these and other pests. Local officials and experts will be contacted if serious outbreaks of any of these pests are discovered. Advice and recommendations will be sought in order to control problem pests. The first alternative for controlling pests will be through cultural means, such as harvesting, clearing, and burning or manual removal of the pest or infected plant. Any biological or chemical control methods will be performed as necessary and with the recommendation and assistance of local officials and experts.

If pesticide application is necessary, the landowner will develop a treatment prescription prior to any chemical use. The plan will include chemical application objectives, rate and method of application, risks and benefits of the chemical used and alternatives considered.

Rare, Threatened, or Endangered Species

The landowner or their consulting foresters annually update data on rare, threatened or endangered species' locations, typically through the state's Natural Heritage Program. If there is a sighting of a species or habitat on or near the FMU, the landowner maps the location and takes all necessary precautions, which will vary depending on the situation, during management activity.

If the presence of an RTE species or community type is suspected on the Allegheny Property, the landowner will either conduct a field survey prior to management activities, or manage as if the species is present. When an RTE species or community type is confirmed present, management activities may include but are not limited to the following:

- Modifying timber harvest prescriptions and adding the changes as an addendum to the timber harvest plan.
- Creating conservation zones, or maintaining existing zones, to enhance the viability of populations and their habitats, including their connectivity within the landscape.
- Controlling activities such as hunting, fishing, trapping and collecting to ensure adequate protection of the species or community type."

B. Describe the calculation methodologies used to determine metric tons per acre for each of the carbon pools included in the Offset Project Data Report.

IFM-1 Standing Live:

Gross and sound cubic foot volume was calculated using equations and coefficients developed by Scott (1981), based on guidance from "Methods and Equations for Estimating Aboveground Volume, Biomass, and Carbon for Trees in the U.S. Forest Inventory, 2010" (Woodall, 2011).

Biomass was computed using the component ratio method and Jenkins coefficients following the procedures and equations outlined in "The Forest Inventory and Analysis Database: Database Description

and Users Manual Version 4.0 for Phase 2,” and as specifically described in Appendix J, Tables 1 through 4. As stated in the COP, biomass was converted into 0.5 to calculate the mass (kg) in carbon. This product was multiplied by 0.001 tons/kg to convert the mass to metric tons of carbon. Then, the product was multiplied by 3.664 to convert the metric tons of carbon into metric tons of CO₂e.

Projected Growth

For further specification, please see the “Allegheny_Modeling_Explanation_7_17_18” document, provided separately for verification.

Site Index

NRCS SSURGO data and “Forestland Productivity” reports were obtained from NRCS for Clay County, WV. This information was used to determine a site index species and value for every plot. For further specification, please see the “Allegheny_Modeling_Explanation_7_17_18” document, provided separately for verification.

Silvicultural Methods

Below is a description of the silvicultural prescriptions used in the modeling. To determine the amount of additional regeneration after certain types of harvests, regeneration model input ratios from Nunery and Keeton 2010 were used (“Forest carbon storage in the northeastern United States: Net effects of harvesting frequency, post-harvest retention, and wood products”, Table 4).

Prescription	Regime Description
Grow	Default FVS “let-grow” scenario with no harvest activities.
Single-tree selection	10-year re-entry period with no species preferences.
Shelterwood	Two-stage cut: Shelterwood cut to a residual basal area target of 50 square feet basal area followed by overstory removal with no species preferences. Minimum 40-year reentry period; 80 square feet stocking trigger.
Variable Retention Harvest	Variable basal area retention targets with no species preferences. 40-year re-entry period.

Legal Constraints

As stated in West Virginia Silvicultural Best Management Practices for Controlling Soil Erosion and Sedimentation from Logging Operations (2009), “The federal Clean Water Act of 1972, amended in 1977, specified under section 208 that states must reduce silvicultural non-point source (NPS) pollution. This law led West Virginia to enact the Logging Sediment Control Act (LSCA), West Virginia Code 19-1B in 1992. The LSCA mandates the use of Best Management Practices (BMPs) to limit and control erosion and soil movement into streams.”

Stream BMPs: “The minimum SMZ width or distance between exposed or disturbed soil and a perennial or intermittent stream should be no less than 100 feet slope distance on either side of the stream from the top or edge of the channel. On ephemeral streams it should be no less than 25 feet slope distance on each side from the edge of the channel or visible scour.”

To model these constraints, the SMZ will be determined by placing a 100ft buffer will be placed around all intermittent and perennial streams, and a 25ft buffer will be placed around ephemeral streams. Within these constraints, usual practice is the selection of an occasional mature stem within the buffer zone and maintaining at minimum 50% of the live basal area within these zones.

FVS Modeling

The Northeast variant of the Forest Vegetation Simulator (Keyser 2010) was used to model forest growth, mortality and harvest over 100 years. Plot data and tree data was entered into a database readable by FVS, with each plot entered as an individual stand and each tree record multiplied by the appropriate factor to determine trees per acre. TPA, species, height, and DBH were used as inputs for the TreeInt input file. After entry into FVS, the “forest” was grown 100 years and the resulting tree list used to calculate biomass. Simulations were conducted in 5-year increments. The predicted DBH and total heights were used for all future projections of DBH and total height.

All FVS defaults for the Lake States variant were used besides the following calibration components:

- The location code for Monongahela National Forest (921)
- Site index values derived from NRCS soil data
- The minimum acceptable harvest volume was set to 600 cubic feet per acre based on the minimum harvest volumes for the property
- The minimum and maximum DBH for harvestable trees in the single tree selection and shelterwood harvests was set to 2”-32” based on property specifications for harvestable timber

For further specification, please see the “Allegheny_Modeling_Explanation_7_17_18” document, provided separately for verification.

Adjustments for Start Date

To determine CO2 stocks at the project commencement date, the tree data was grown backwards to 10/27/2015. Detail on how the data was grown can be found in the “Allegheny_Modeling_Explanation_7_17_18” document, provided separately for verification.

Adjustments for Reporting Period Calculations

To determine CO2 stocks at the end of the reporting period, the initial inventory was assumed to be reflective of the end of reporting period stocks. This is because the inventory was completed less than 1 month following the end of reporting period, so the inventory is fully reflective of all growth and harvesting that occurred during this period.

Belowground Live/Dead

The belowground portion of live and dead trees is calculated using the component ratio method (“CRM”) described in Appendix J of the Forest Inventory and Analysis (FIA) documentation cited in the COP.

IFM-3 Standing Dead:

Standing dead wood carbon is calculated by estimating above and below ground biomass in the same manner it was for live trees and then converting this figure to CO2e.

Standing dead wood is calculated on a per acre basis for each stratum. A project-wide estimate of standing dead wood is calculated using a weighted average with weights assigned based on stratum size.

Calculated standing dead will be updated in the project scenario every time new inventory data is collected. For the baseline, standing dead is projected to remain constant over the 100-year baseline at 2.23 tonnes CO2 per acre.

IFM-6 Soil (if applicable): NA

IFM-7 Carbon in in-use forest products:

Carbon in in-use forest products was calculated using actual harvest volumes, following the steps in Appendix C.3 of the COP. Calculations have been provided separately for verification purposes.

A default regional value was used for mill efficiency and product mix based on weighted average of relative acreage.

IFM-8 Forest product carbon in landfills (if applicable):

Forest product carbon in landfills is calculated in accordance with the procedures described in Appendix C of the Forest Protocol.

IFM- 9 Biological emissions from site preparation: NA

IFM-14 Biological emissions/removals from change in harvesting on forestland outside the Project Area:

Calculated using a default 20% “leakage” factor applied to the difference in harvest volume relative to baseline.

IFM-17 Biological emissions from decomposition of forest products:

Biological emissions from decomposition of forest products was quantified as a component of carbon stored in in-use forest products (IFM-7) and landfills (IFM-8).

C. Provide a summary of the inventory of carbon stocks for each carbon pool (or approach used, if inventory is not applicable).

IFM-1 Standing Live:

	Average tCO₂e/acre	Total tCO₂e
Start Date	151.7	6,495,100
End of Reporting Period	154.1	6,595,018

IFM-3 Standing Dead:

	Average tCO₂e/acre	Total tCO₂e
Start Date	2.23	95,513
End of Reporting Period	2.23	95,513

IFM-6 Soil (if applicable): NA

IFM-7 Carbon in in-use forest products:

End of Reporting Period Long-term storage in in-use wood products (tCO ₂ e)						
Units	Lumber	Plywood	Oriented Strandboard	Non Structural Panels	Miscellaneous Products	Paper
Hardwood	7,394	0	2,708	746	227	168
Softwood	109	0	62	116	5	4

IFM-8 Forest product carbon in landfills (if applicable):

End of Reporting Period Long-term storage in wood products in landfills (tCO2e)					
Units	Lumber	Oriented Strandboard	Non Structural Panels	Miscellaneous Products	Paper
Hardwood	12,245	1,084	676	587	515
Softwood	70	25	105	13	12

IFM- 9 Biological emissions from site preparation: NA

IFM-14 Biological emissions/removals from change in harvesting on forestland outside the Project Area:
NA

IFM-17 Biological emissions from decomposition of forest products: NA

Actual Harvested Wood Products Summary	Total (tCO2e)	tCO2e / acre
Total Harvested Wood Products	41,123	0.96
Actual Carbon in Harvested Wood Delivered to Mill	66,314	1.55
Actual Carbon in Trees Harvested for Wood Products	124,962	2.92
Actual Carbon Stored Long-term in Wood Products - Excluding Landfill	11,541	0.27
Actual Carbon Stored Long-term in Wood Products - Landfill	15,332	0.36
Actual Carbon Stored Long-term in Wood Products - Including Landfill	26,873	0.63

D. Inventory Confidence Statistics

Total	n	Stratified Standard Error	Bound	Sampling Error
6,690,532	296	204,266	336,018	5.0%

The inventory sampling error at the end of the reporting period was calculated as follows:

- 1) $204,266 * 1.645 = 336,018$
- 2) $(336,018 / 6,690,532) * 100 = 5.0\%$

The sampling error of 5.0% is below 5.1%, so no confidence deduction should be applied to the inventory results.

E. Reversal Risk Rating

Reversal Risk Rating was calculated using the following formula:

Reversal Risk= $100\% - (1 - \text{Financial Failure}) \times (1 - \text{Illegal Forest Biomass Removal}) \times (1 - \text{Conversion}) \times (1 - \text{Over Harvesting}) \times (1 - \text{Social Risk}) \times (1 - \text{Wildfire}) \times (1 - \text{Disease/Insect Outbreak}) \times (1 - \text{Other Catastrophic Events})$

$$= 1 - ((1 - 0.05) * (1 - 0.0) * (1 - 0.02) * (1 - 0.02) * (1 - 0.02) * (1 - 0.04) * (1 - 0.03) * (1 - 0.03))$$

$$= 19.2\%$$

Buffer Pool Contribution: $2,119,179 \text{ net ARBOCs} * 0.192 = 407,650 \text{ ARBOCs}$ contributed to the Forest Buffer Account.

Part VIII. Offset Project Baseline

1. The aboveground Common Practice (CP) value is 87.1 mtCO₂e/acre with a total live value of 104.0 mtCO₂e/acre. The project's aboveground ICS live carbon stocks of 126.9 mtCO₂e/acre is above the CP value, and thus the CP is equal to the Minimum Baseline Level (MBL).

Supersection	Assessment Area	Site Class	CP	Acres
Allegheny & North Cumberland Mountains	Allegheny & North Cumberland Mountains Cove Forests	Low	90.5	9,260
	Allegheny & North Cumberland Mountains Mixed Hardwoods	Low	52	590
	Allegheny & North Cumberland Mountains Northern Hardwoods	Low	87	26,446
	Allegheny & North Cumberland Mountains Oak-Hickory	Low	93	5,087
Southern Allegheny Plateau	Southern Allegheny Plateau Oak-Hickory	Low	92	440
	Southern Allegheny Plateau Upland Hardwoods	Low	68	988
	Weighted Average/ Total		87.5	42,812

*Note: sub-totals may not sum to 100% due to rounding.

2. Baseline Carbon Stocks

Aboveground (mtCO ₂ e/acre)	Belowground (mtCO ₂ e/acre)	Live (mtCO ₂ e/acre)	Dead (mtCO ₂ e/acre)	Standing (mtCO ₂ e/acre)
87.49	17.1	104.5	2.23	106.78

Summary of Applicable Baseline Carbon Pools

Carbon Pool	Total tCO ₂ e	mtCO ₂ e / acre
IFM-1 Standing Live:	4,475,851	104.5
IFM-3 Standing Dead:	95,513	2.23
IFM-7: Long-term storage in in-use wood products	11,527	0.27
IFM-8: Long-term storage in wood products in landfills	11,208	0.26

3. If the Forest Project's initial standing live carbon stocks are below Common Practice, a determination of the "High Stocking Reference" for the Project Area.

Because the project's initial standing live carbon stocks are above common practice, this section is non-applicable.

4. Baseline Wood Products Summary:

Baseline Harvested Wood Products Summary	Total (tCO ₂ e)	tCO ₂ e / acre
Baseline Carbon Harvested for Wood Products (tonnes CO ₂ e)	108,261	2.53
Baseline Carbon Delivered to Mill (tonnes CO ₂ e)	11,527	0.27
Baseline Carbon Stored in Wood Products – Excl. Landfill (tonnes CO ₂ e)	11,208	0.26
Baseline Carbon Stored in Wood Products Incl. Landfill (tonnes CO ₂ e)	22,735	0.53

5. Baseline Modeling

Please see document, "Allegheny_Modeling_Explanation_7_17_18", provided separately for verification.

6. Harvest Planning

- Is harvesting planned in the Project Area? Yes
- Optional: Does the project use a harvest schedule model? No.

7. Provide an estimate of carbon that was stored long-term in harvested wood products in the baseline.

End of Reporting Period Long-term storage in wood products in in-use wood products (tCO2e)						
Units	Lumber	Plywood	Oriented Strandboard	Non-Structural Panels	Miscellaneous Products	Paper
Hardwood	3,144	0	6,388	317	537	396
Softwood	218	1	257	232	22	16

End of Reporting Period Long-term storage in wood products in landfills (tCO2e)						
Units	Lumber	Plywood	Oriented Strandboard	Non Structural Panels	Miscellaneous Products	Paper
Hardwood	5,207	2,557	287	1,384	1,214	5,207
Softwood	140	1	103	210	56	49

Baseline Wood Products Summary	Total (tCO2e)	tCO2e / acre
Total Harvested Wood Products	36,179	0.85
Baseline Carbon in Harvested Wood Delivered to Mill	57,451	1.34
Baseline Carbon in Trees Harvested for Wood Products	108,261	2.53
Baseline Carbon Stored Long-term in Wood Products - Excluding Landfill	11,527	0.27
Baseline Carbon Stored Long-term storage in wood products in landfills	11,208	0.26
Baseline Carbon Stored Long-term in Wood Products - Including Landfill	22,735	0.53

8. Secondary Effects

The equation below outlines the process by which secondary effects are calculated for IFM projects:

$$\text{If } \sum_{n=1}^y (AC_{hv,n} - BC_{hv,n}) < 0, \text{ then } SE_y = (AC_{hv,y} - BC_{hv,y}) \times 20\%$$

Where

SE_y = Estimated annual Secondary Effect (used in Equation 6.1).

$AC_{hv,n}$ = Actual amount of onsite carbon harvested in reporting period n (prior to delivery to a mill), expressed in CO₂-equivalent tons.

$BC_{hv,n}$ = Estimated average baseline amount of onsite carbon harvested in reporting period n (prior to delivery to a mill), expressed in CO₂-equivalent tons, as determined in Step 1 of Section 6.2.3.

Y = The current year or reporting period.

In the case of the Allegheny IFM project, this equation is calculated as follows:

$$= (124,962 - 108,261) * 0.2$$

= NA (project wood products are greater than baseline wood products so no deductions are required for this reporting period)

Secondary Effects Inputs	Tonnes CO2e
Actual Carbon in Trees Harvested for Wood Products	124,962
Baseline Carbon in Trees Harvested for Wood Products	108,261
Difference Between Actual and Baseline Carbon in Trees Harvested for Wood Products	16,701
Secondary Effects Emissions	NA

Total Net GHG reductions and GHG removal enhancements (QRy) For the Reporting Period

This final calculation for the project reporting period is carried out in the *Allegheny ARBOC Calculation Worksheet* (provided separately for verification purposes) and summarized below.

Summary	Tonnes CO2e
ARBOCs Issued	2,119,179
Buffer Pool Contributions	407,650
Annual ARBOCs Issued to Account Holder	1,711,529

9. Provide a projection of baseline and actual harvesting volumes from the Project Area over 100 years.

Please see Attachment H.

10. Baseline Modeling

Please see provided proprietary document, "Allegheny_Modeling_Explanation_7_17_18"

11. Provide a description of any and all legal constraints affecting forest management activities in the Project Area. Include documentation of legal constraints and a description of each constraint (referring to Section 6.2.1.2); for each constraint provide a narrative that constraint has on forest management.

Please see Attachment I below.

12. Provide a description of the modeling techniques used to simulate the effect of any constraints on carbon stocks.

Please see provided proprietary document, "Allegheny_Modeling_Explanation_7_17_18".

13. The OPO will demonstrate financial feasibility of the growth and harvesting regime assumed for the baseline by conducting a financial analysis of the anticipated growth and harvesting regime that captures all relevant costs and returns, taking into consideration all legal, physical, and biological constraints, using regional norms or documented costs and returns for the Project Area or other properties in the Forest Project's Assessment Area. Please see Attachment J.

Part IX. Other Offset Programs

- A. Have any GHG reductions or GHG removal enhancements associated with the Project Lands have ever been listed or registered with, or otherwise claimed by, another registry or program, or sold to a third party prior to listing? No
- B. Have any lands within the Project Area ever been listed or registered with an offset project registry or program in the past? No
- C. Have greenhouse gas emission reductions or removal enhancements associated with lands within the Project Area been credited or claimed for the purpose of greenhouse gas mitigation or reduction goals, whether in a voluntary or regulatory context? No.

Part X. Attachments

Attachment A: Forest Owner

Please see corresponding folder containing all deeds, provided separately for verification purposes.

Attachment B: Public Projects

N/A

Attachment C: Qualified Conservation Easement

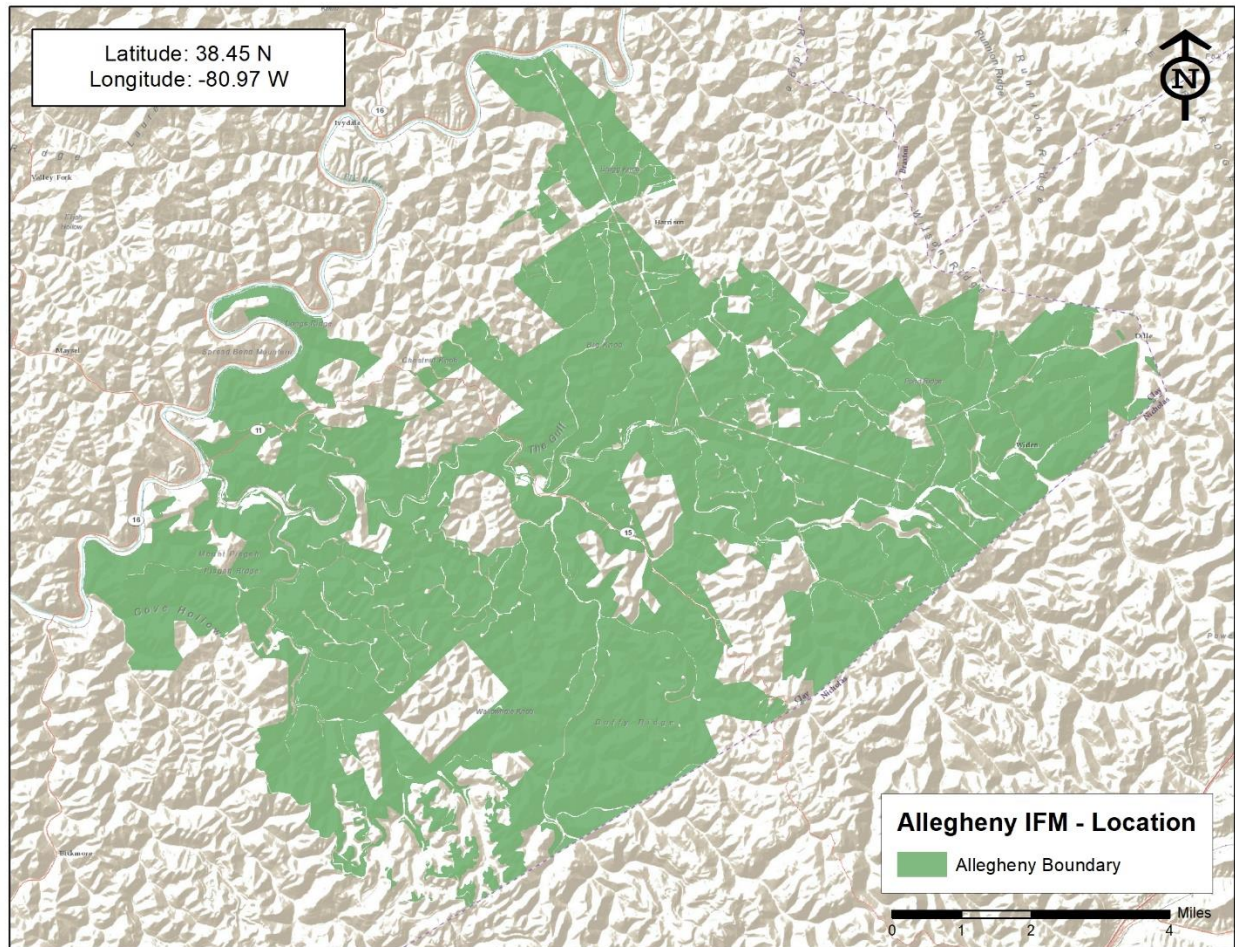
N/A

Attachment D: Tribal Projects

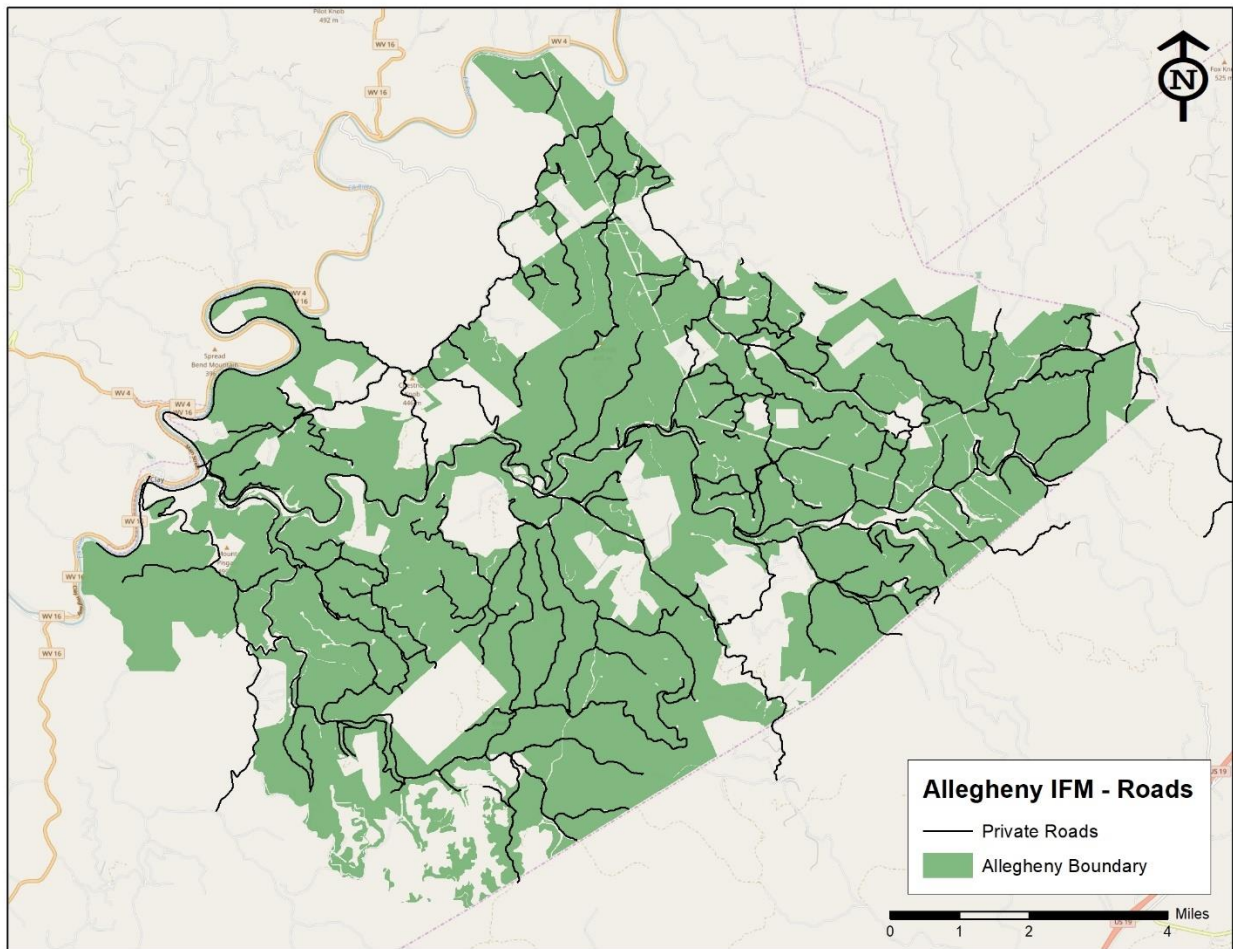
N/A

Attachment E: Project Maps

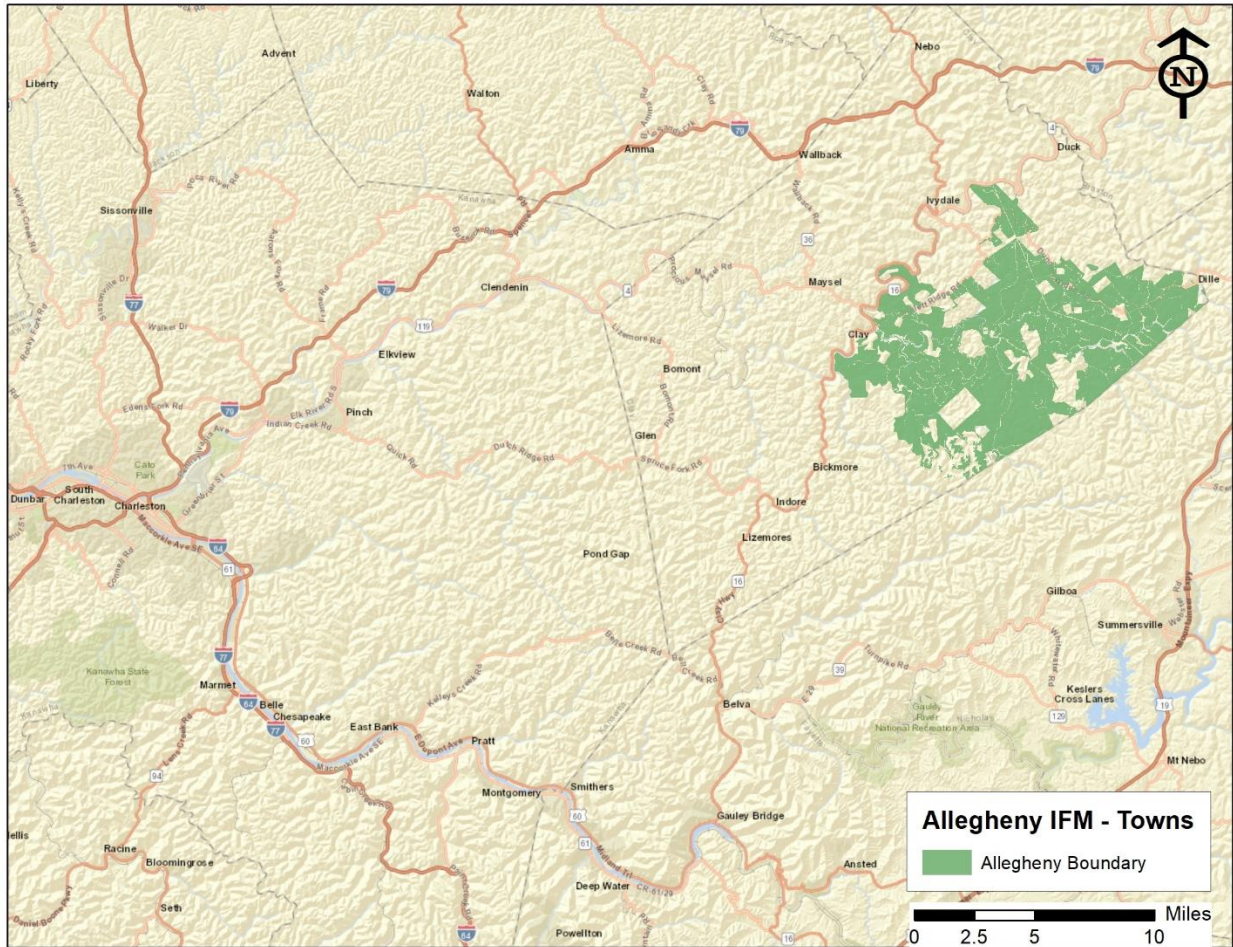
1. Latitude/longitude coordinates



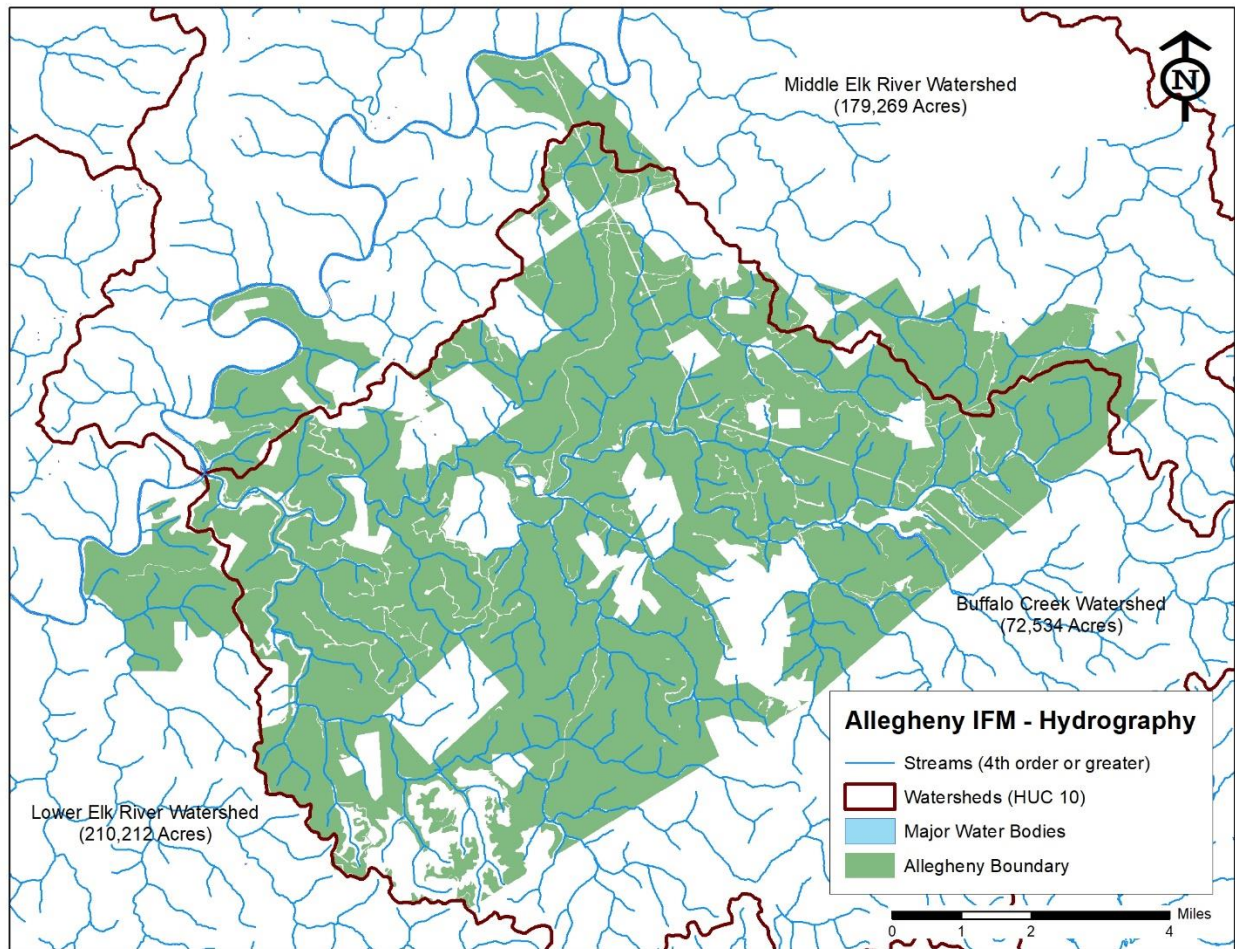
2. Public and private roads (map)



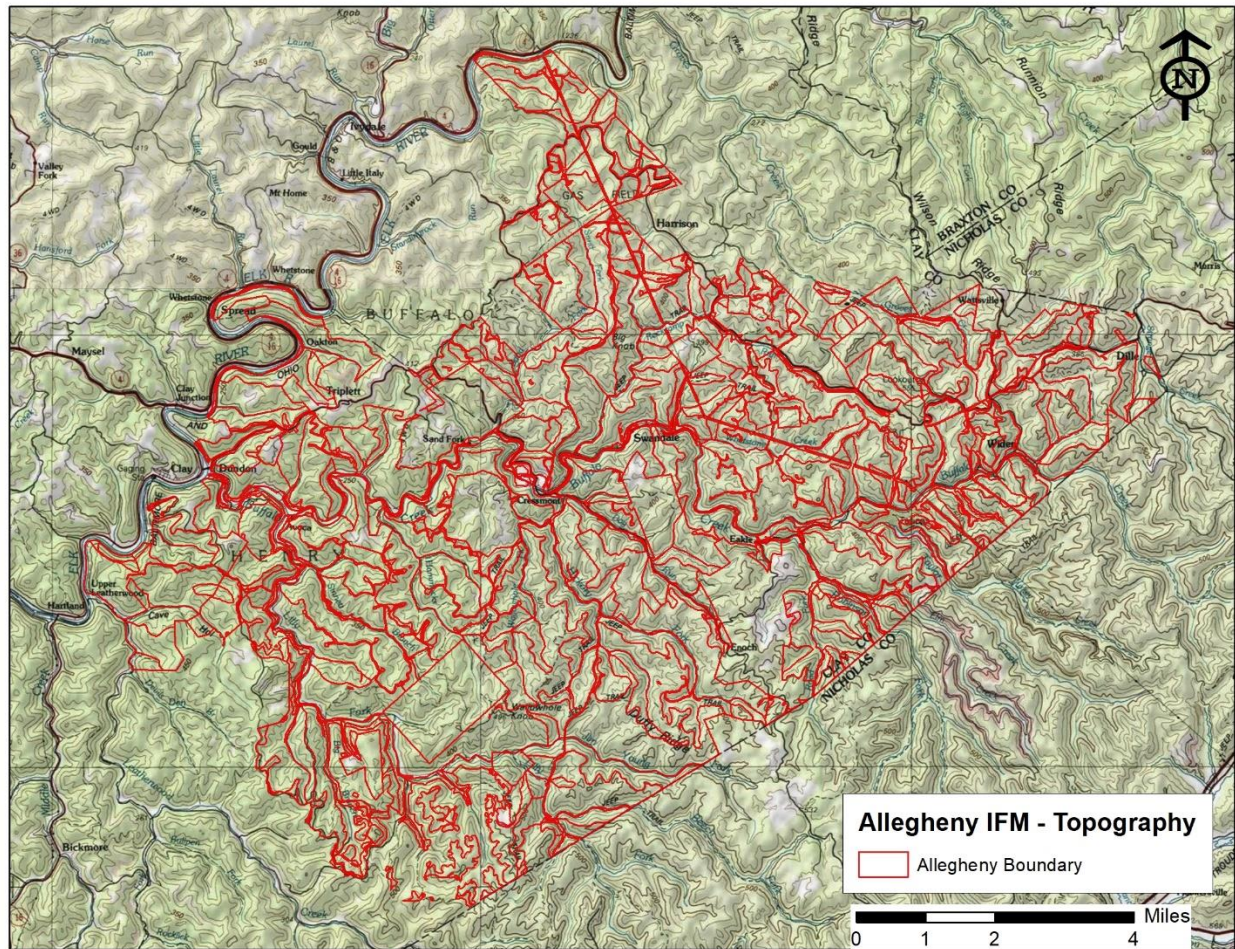
3. Towns (map)



4. Major watercourses (4th order or greater), water bodies, and watershed description (map)



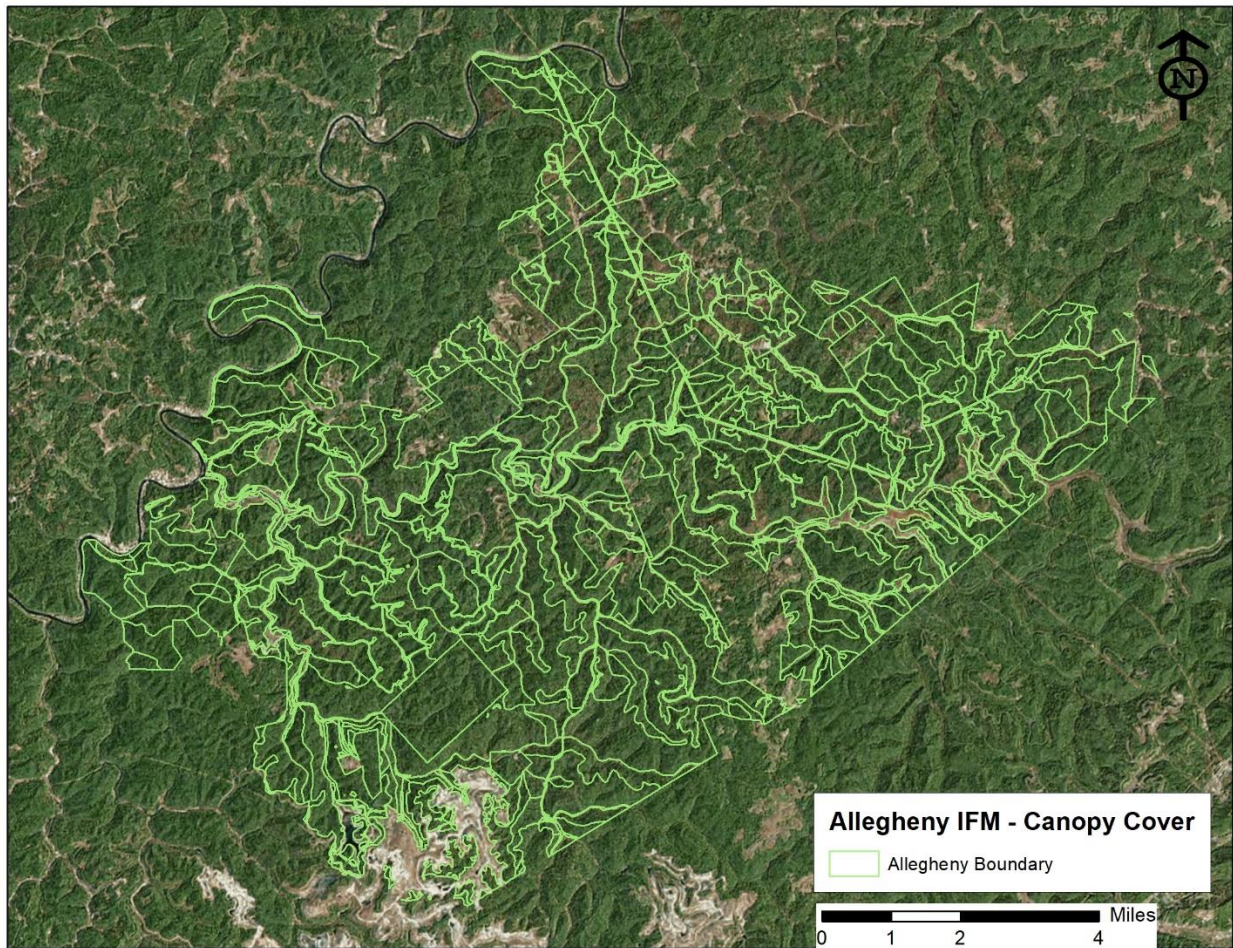
5. Topography (map)



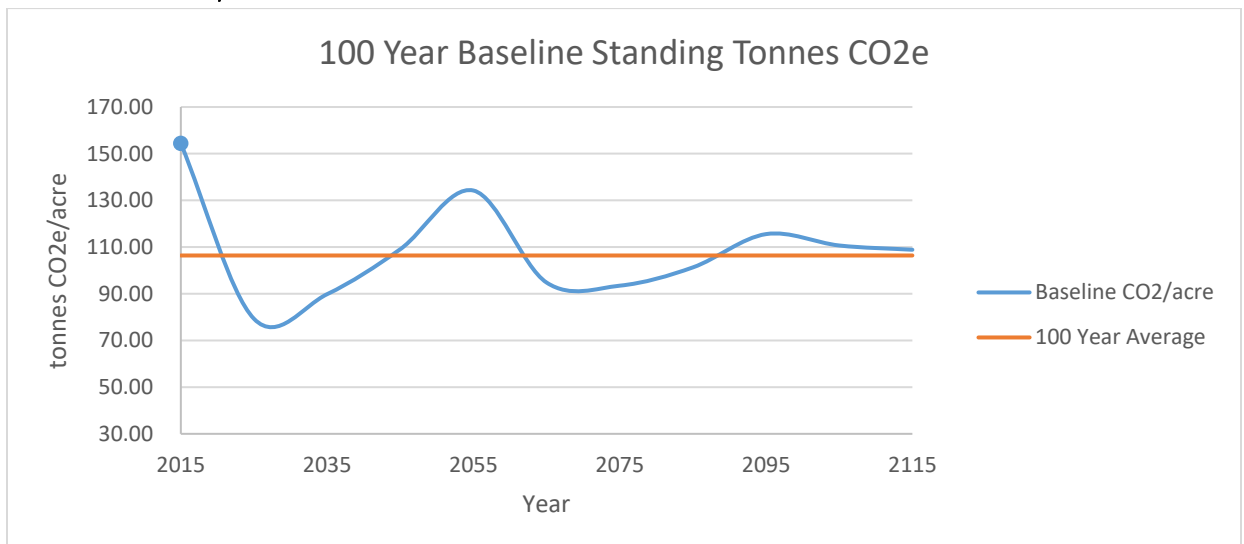
6. Existing land cover and land use (optional): N/A
7. Forest vegetation types (optional): N/A
8. Site classes (optional): N/A
9. Land pressures and climate zone/classification (optional): N/A
10. Historical land uses, current zoning, and projected land use within the Project Area (optional): N/A
11. A georeferenced shape file (or other electronic file that can be read in a geographic information system) that clearly identifies the Project Area and boundaries. Please see georeferenced shapefile provided separately.

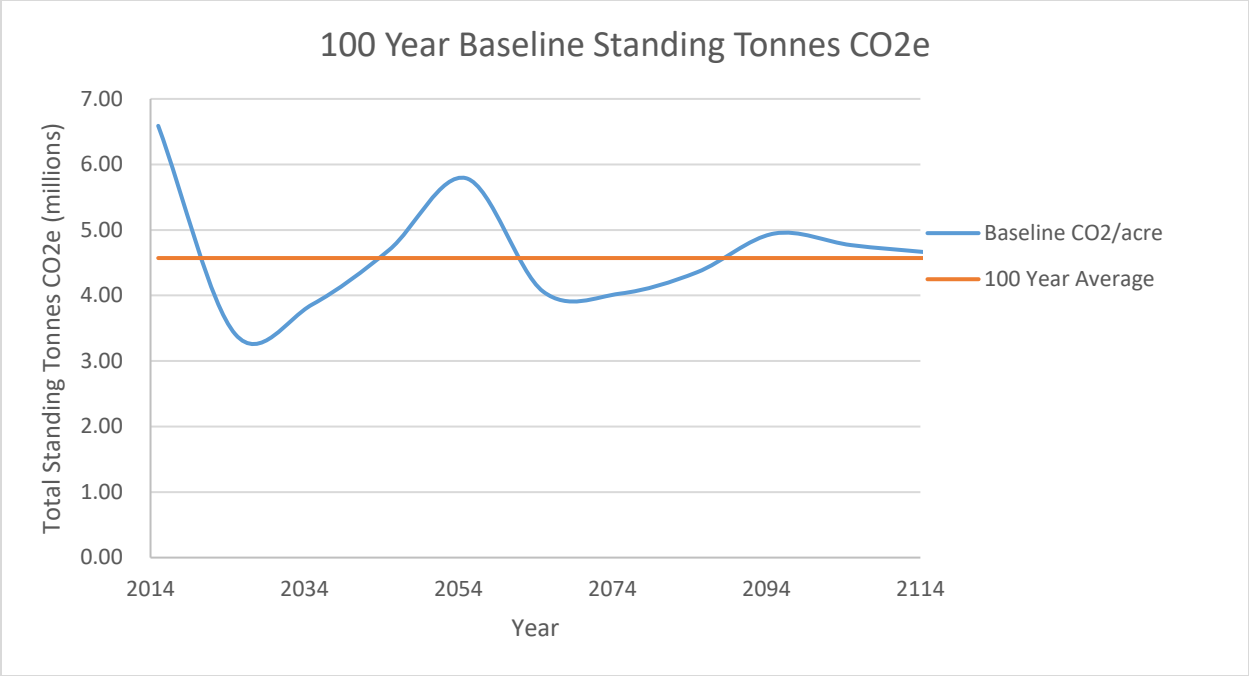
Attachment F: Canopy Cover

Non-forested areas were removed from the project area within a minimum mapping unit of 2.5 acres. An analysis of the forest cover within the Project Area confirmed the remaining forested acres contain 99% forest cover.

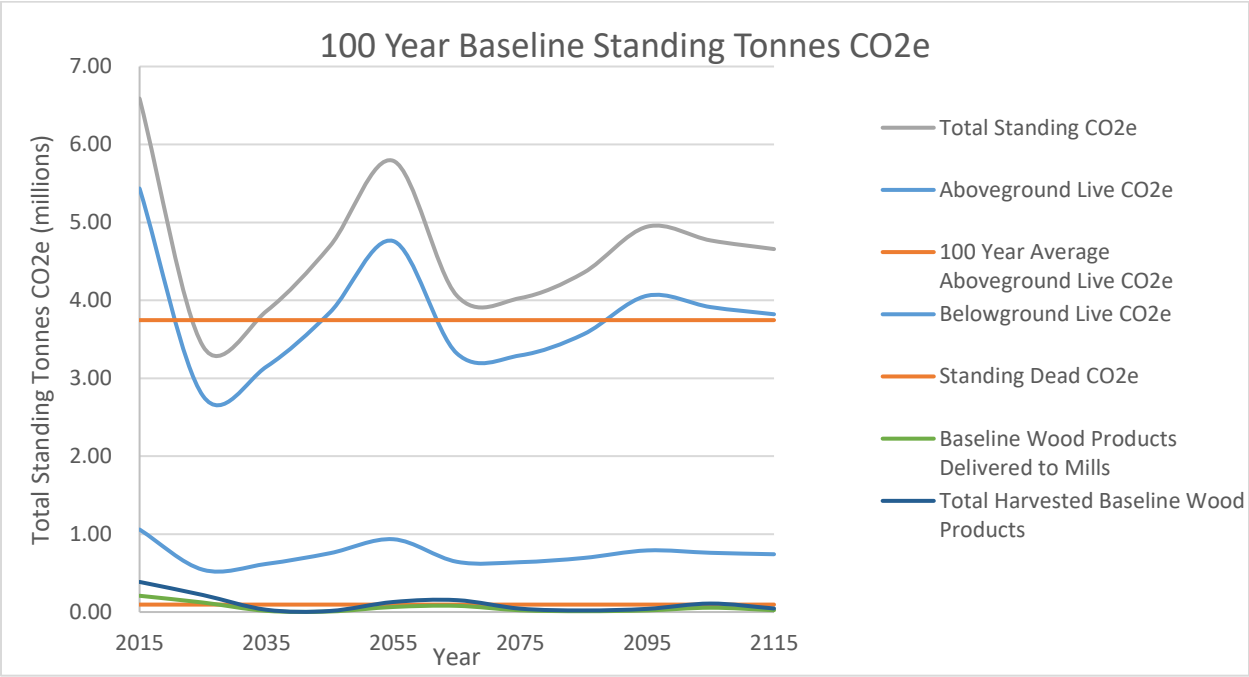


Attachment G: 100-year Baseline





Attachment H: Baseline Onsite Carbon Stocks



Within 5-10 years after the project commencement, a large majority of the carbon stocks on the property will be harvested using even-aged silvicultural techniques. Over the next forty years, these stocks will re-establish to current levels. At this time, another large even-aged harvest is anticipated. Following this second harvest, the remaining growing stock will continue to grow until the end of the 100-year timeframe.

Attachment I: Legal Constraints

As stated in West Virginia Silvicultural Best Management Practices for Controlling Soil Erosion and Sedimentation from Logging Operations (2009), “The federal Clean Water Act of 1972, amended in 1977, specified under section 208 that states must reduce silvicultural non-point source (NPS) pollution. This law led West Virginia to enact the Logging Sediment Control Act (LSCA), West Virginia Code 19-1B in 1992. The LSCA mandates the use of Best Management Practices (BMPs) to limit and control erosion and soil movement into streams.

Stream BMPs: “The minimum SMZ width or distance between exposed or disturbed soil and a perennial or intermittent stream should be no less than 100 feet slope distance on either side of the stream from the top or edge of the channel. On ephemeral streams it should be no less than 25 feet slope distance on each side from the edge of the channel or visible scour.”

To model these constraints, the SMZ will be determined by placing a 100ft buffer will be placed around all intermittent and perennial streams, and a 25ft buffer will be placed around ephemeral streams. Within these constraints, usual practice is the selection of an occasional mature stem within the buffer zone and maintaining at minimum 50% of the live basal area within these zones.

Attachment J: Financial Feasibility

A financial analysis (Forest Protocol section 6.2.1.3, option 1) of the baseline growth and harvest regime reveals that the activities represented in baseline scenario are clearly feasible. Please see “Allegheny Baseline Financial Feasibility_7_17_18”, provided separately for verification.

Part XI. Attestations and OPO Signature

I certify under penalty of perjury under the laws of the State of California the GHG reductions and/or GHG removal enhancements for Blue Source- Allegheny Improved Forest Management Project from 10/27/2015 to 10/26/2040 will be measured in accordance with the Compliance Offset Protocol U.S. Forest Projects, November 14, 2014, and all information required to be submitted to ARB is true, accurate, and complete.

Initial:

I understand I am voluntarily participating in the California Greenhouse Gas Cap-and-Trade Program under title 17, article 5, and by doing so, I am now subject to all regulatory requirements and enforcement mechanisms of this program and subject myself to the jurisdiction of California as the exclusive venue to resolve any and all disputes arising from the enforcement of provisions in this article.

Initial:

I understand that the offset project activity and implementation of the offset project must be in accordance with all applicable local, regional, and national environmental and health and safety laws and regulations that apply to the offset project location. I understand that offset projects are not eligible to receive ARB or registry offset credits for GHG reductions and GHG removal enhancements that are not in compliance with the requirements of the cap-and-trade program.

Initial:

In signing this form, I certify under penalty of perjury of the laws of California that the information contained in this form is true, accurate, and complete. I further certify that I am an Account Representative of the Offset Project Operator (OPO).

Signature:

Printed Name: Roger Williams

Title: President, Blue Source LLC

Date: 7/23/2018