



Dear Technical Service Provider,

Future Generations University's Appalachian Program welcomes you to Reading the Woods! Reading the Woods is a professional development program to help farm & forest service providers learn how to holistically assess forests for their agroforestry potential. As you do the difficult work of servicing Appalachia's woodland stewards, we can help by offering our methodology, our process, our toolbox, and our network. Inside the online toolbox you will find:

- an assessment workbook
- a library of resources
- a directory of local specialists
- production planning resources
- agroforestry production & cost calculators

If you haven't been lucky enough to attend one of our online or in-person workshops on Reading the Woods, this welcome packet can serve as orientation. Please review the [Facilitation Guide](#), including the [How to Read the Woods](#) infographic, to familiarize yourself with the Reading the Woods methodology before digging through the toolbox. We do not expect you to follow the Facilitation Guide step by step but rather to use what you find helpful – it's a toolbox, not a recipe. The Facilitation Guide and the accompanying resources are available for those who need it. We strongly encourage all technical service providers to provide a [summary report](#) of the whole woods assessment to the woodland steward(s). Your process for completing the whole woods assessment is up to you, and will probably vary depending on the requirements of your employer or institution.

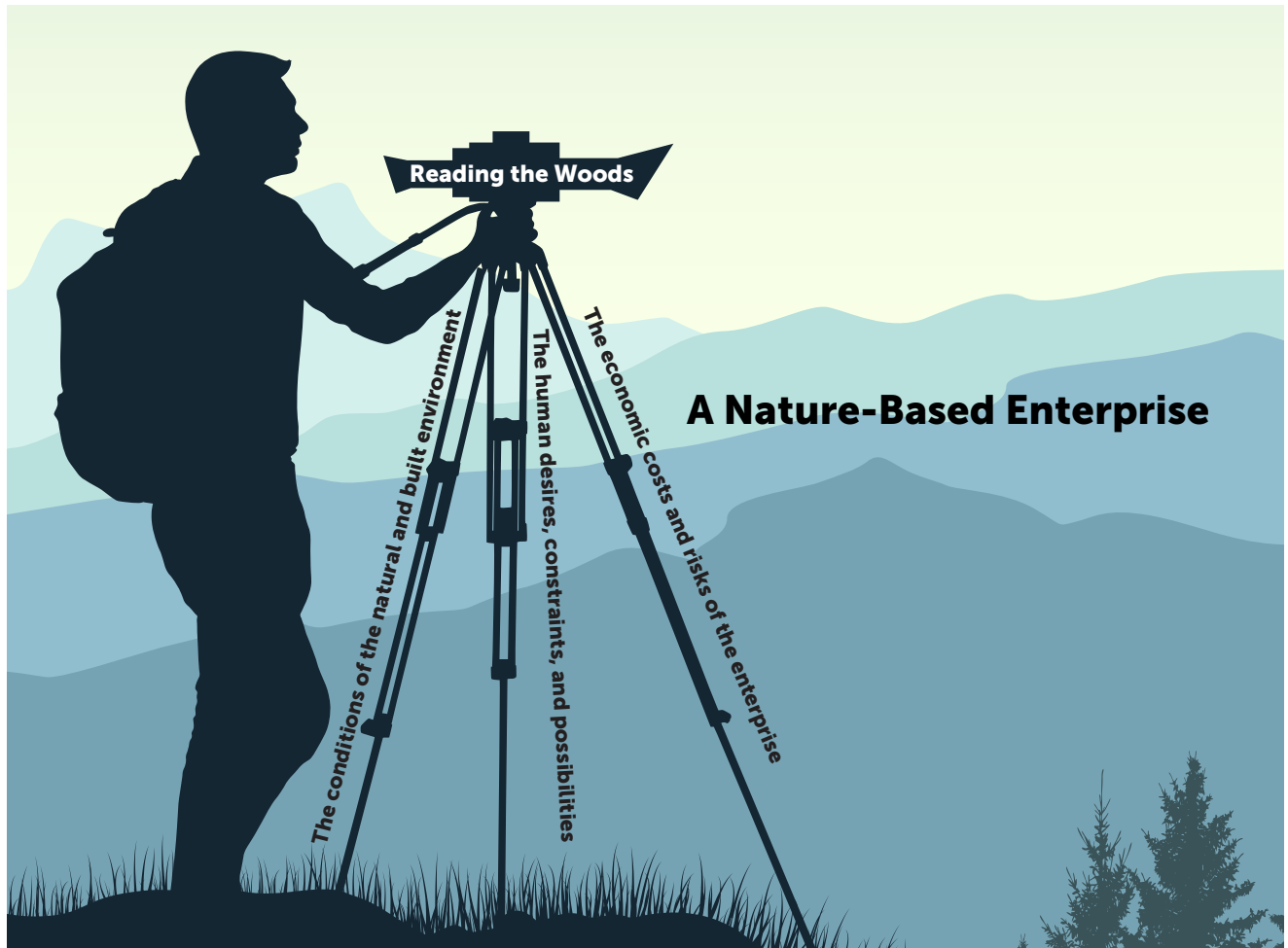
We will continue to provide new and updated nature-based enterprise resources, both in this toolbox and at other places on our website. And we always ask for and welcome feedback. In this way we can make Reading the Woods accessible, user-friendly, and effective for all technical service providers. We hope Reading the Woods is a valuable program that helps shift perceptions and management of the region's diverse forests towards an understanding of sustainable forest management that supports people's livelihoods, honors the region's heritage of forest farming, and protects the rich biodiversity of our forests.

Sincerely,

The Reading the Woods Team

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

Reading the Woods Orientation Guide



This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

This document is a step-by-step orientation guide to the Reading the Woods toolbox. By following this guide, you'll be able to make full use of the Reading the Woods process and tools our team developed. The orientation guide is made up of five working sections.

1. Schedule and Conduct an Initial Assessment with the Woodland Steward(s)
2. Conduct a Whole Woods Assessment with the Woodland Steward(s)
3. Complete a Whole Woods Stewardship Analysis for Sustainable, Nature-Based Enterprises
4. Generate a Whole Woods Enterprise Plan
5. Conduct a Post-Assessment with the Woodland Steward

The five steps lead technical service providers through a series of assessments to gather information about the woodland steward(s), the forest, and the economic viability of an enterprise. The assessments generate both actual and forecasted evidence to analyze and calculate projected enterprise outcomes. The nature-based enterprise resources available in the online toolbox are referenced in each section to support technical service providers in completing the assessments, making calculations, and enterprise planning.

In addition to the step-by-step instructions for assessment, this orientation guide contains a helpful flow chart to show which step is to be taken when, and a narrative preface that describes the method & approach of Reading the Woods, and explains the infographic on this guide's cover. Reading the Woods is designed to be customizable to meet the different needs of different technical service providers and woodland stewards. So even though the sections have a numerical order, you are welcome to use the tool in the order that best fits your relationship with the woodland steward.

Acknowledgements

Future Generations University Appalachian Program would like to acknowledge the decades of published materials that precede the publication of "Reading the Woods." We heavily borrowed from the work of Jonathan S. Kays and Joy Drohan's *Forest Landowner's Guide to Evaluating and Choosing a Natural Resource-Based Enterprise*; The Yew Mountain Center's *West Virginia Forest Farming Initiative Site Visit Intake Questionnaire*; Rural Action and United Plant Saver's *Forest Farmers Handbook: A Beginner's Guide to Growing and Marketing At-Risk Forest Herbs*; The Center for Agroforestry at the University of Missouri's *Training Manual for Applied Agroforestry Practices*; the USDA Forest Service's *Income Opportunities in Special Forest Products: Self-Help Suggestions for Rural Entrepreneurs*; and Northeast SARE's *Reading the Farm: Training Agricultural Professionals in Whole Farm Analysis for Sustainable Agriculture, A Planning and Facilitation Guide*.

We would like to express our deepest appreciation and gratitude to the Reading the Woods Advisory Committee and key informants who contributed personal experiences, published works, network contacts, resources, and expertise on forest farming in Appalachia.

Table of Contents

Flowchart: “How to Read the Woods: For Technical Service Providers”	4
Why “Reading the Woods”? a brief description of the method	5
Step 1: Schedule and Conduct an Initial Assessment	8
Step 2: Conduct a Whole Woods Assessment with the Woodland Steward(s)	9
Step 3: Complete a Whole Woods Stewardship Analysis	10
Step 4: Generate a Whole Woods Enterprise Plan	11
Step 5: Conduct a Post-Assessment with the Woodland Steward	12

How to Read the Woods

For Technical Service Providers

Schedule and conduct an initial assessment with the woodland steward

- Introduce Reading the Woods
- Begin to “shift the gaze” towards a holistic view of the forest
- Complete the Woodland Steward Self-Assessment



Conduct a Whole Woods Assessment with the woodland steward

- Obtain a forest inventory
- Collect questions

- Q Whole Woods Enterprise Matrix
- Q Consult local specialists
- Q Review the Woodland Steward’s Self-Assessment
- Q Refer to the Library & Archive for any remaining questions



Complete the Whole Woods Stewardship Analysis for Sustainable, Nature-based Enterprises

- Evaluate family needs and preferences
- Assess market potential
- Evaluate enterprise production feasibility
- Determine financial viability
- Assess long-term sustainability



Generate a Whole Woods Enterprise Plan

- Q Use enterprise calculators to project costs
- Q Use the Enterprise Budget Template to create an enterprise budget
- Q Complete the Yearly Tasks Plan Worksheet

Q Tools and resources



This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

Conduct a Post-Assessment with the woodland steward

- Review the Whole Woods Enterprise Plan, make amendments
- Determine whether further mentoring is needed
- Consider additional nature-based enterprises ...

REPEAT ASSESSMENT TO CONSIDER ADDITIONAL NATURE-BASED ENTERPRISES

Why “Reading the Woods”? a Brief Description of our Method for Technical Service Providers

The Appalachian mountains are beautiful, and they’re home to diverse, healthy, fecund forests. In fact, on many small farms, the forest might have more acreage than the cropland or pastureland. Among consumers, interest is rising in forest-grown products. Accordingly, there are many new entrepreneurs beginning to look for ways to make a business, or even several enterprises, in the forest. Because various businesses like making maple syrup, growing goldenseal, leasing hunting rights, or selling carbon sequestration credits all require the naturally-grown forest, we refer to all these different businesses as “nature-based enterprises.” Sometimes these folks own their forest, sometimes they’ll lease someone else’s land for a specific purpose, or sometimes they start a business based out of a family member’s woodlot. Accordingly, we use the term “woodland stewards” to refer to these entrepreneurs—a term we borrowed from WVU Forestry Specialist David McGill.

But starting a nature-based enterprises can be difficult and confusing. Terms like “agroforestry,” “non-timber forest products,” and “forest farming” can be difficult to understand, because they often refer to a plethora of different, unrelated, production practices and business models. Accordingly, woodland stewards turn to land-grant Extension agents, NRCS agents, consulting foresters, and similar professionals for advice—a group we refer to collectively as “technical service providers.” Technical service providers have knowledge bases, skillsets, and often funding opportunities that can be of great help to these woodland stewards. But even the most knowledgeable technical service providers rarely get the chance to take a step back and look at the big picture. Often, that big-picture perspective is precisely what woodland stewards need before they know which technical service provider to call for the which type of assistance.

What’s needed is a clear framework, a method, that allows one to see the whole landscape, and which can be returned to for perspective when one gets lost in the details of a specific project. Reading the Woods is a method that can serve this function, training the woodland steward and the technical service provider to look at the nature-based enterprise landscape wholistically. Before allowing our gaze to take in the whole horizon, we need to ensure that our lens is placed upon a well-grounded tripod. As you can see in the image on the cover of this guide, the three legs of any nature-based enterprise are the environmental conditions of the farm and forest land, the economic conditions inherent in the enterprise itself and its market, and the social conditions of the farmer and their community.

The Reading the Woods project team generally advises TSPs to begin with the social, human, conditions of a nature-based enterprise. The most important aspect of the social conditions of a nature-based enterprise is the one most likely to be overlooked, because of its seeming obviousness: discovering the woodland steward’s definition of “success.” Does the enterprise need to cover property taxes? Is the enterprise so interesting or fulfilling to the woodland steward that breaking even is sufficient? Is this a family tradition, something that needs passed on to the next generation at nearly any cost?

Perhaps the woodland steward is enterprise-agnostic—whatever is most lucrative, or least time-consuming, will get preferred. Without a robust definition of success, a vision of the good woodland, that motivates the collaboration between the service provider(s) and the woodland steward, it is difficult to measure whether advice is helpful, and difficult to sustain progress.

Once the woodland steward's vision of success is clear to the TSP(s), the remaining parts of the social conditions fall into place easily. For example, labor time—any given farm family has only so many human hours, and has preferences about how to spend them. Market conditions are important, too: an enterprise that relies on direct-to-consumer sales is a great idea for a farmer who lives near a metro area, or near a flourishing farmers' market, but perhaps not for someone who's an hour from an interstate. These social conditions aren't in the wheelhouse of any particular technical service provider, but can naturally come up in conversation, as long as the service provider has enough time to spend consulting the woodland steward.

The second leg of the tripod—environmental conditions—are usually fairly well-understood by the appropriate technical service providers. Government and private agencies recruit, hire, and sometimes train technical service providers to analyze the health and composition of tree stands, the condition of the soils, the presence of waterways, the aspect and elevation of hillsides, and many more geological and ecological conditions. The presence and density of maple trees is a crucial determinant of whether a maple syrup enterprise is viable, and the amount of daylight hitting the forest floor can either facilitate or inhibit a forest-farming enterprise. Answering these types of questions requires some background understanding of basic agricultural and/or forestry science, and technical service providers are usually approached by woodland stewards precisely for this expertise. Reading the Woods encourages service providers to also attend to the built aspects of the environment. Whether access roads, electricity, or running water are available are important considerations in planning nature-based enterprises.

Still, not all natural conditions are as well-known by all service providers. Foresters who can do a timber cruise in their sleep might not know how to look to the understory for enterprise possibilities there, and experts on maple syrup might not know the first thing about silvopasture. For this reason, Reading the Woods has had great success with combined woodlot assessment – asking foresters and various experts in diverse nontimber forest products to walk through the woods together, jointly assessing the possibilities for the woodland steward and simultaneously cross-training each other. Because a woodland steward often doesn't know what they don't know—while a technical service provider usually knows what type of scientific or practical expertise they have and don't have—it may often take the initiative of a far-seeing technical service provider to make sure the right experts are providing the right perspectives.

Economic conditions are sometimes well-known by technical service providers, but, generally, they are less well-known than the environmental conditions. This is not entirely an oversight in service provider training; markets in various non-timber forest products are less understood than other markets and can often be highly variable. Creating value-added products instead of marketing raw commodities makes a difference in the economic viability of the nontimber forest product. And, of course, there are almost innumerable

entrepreneurial innovations which might not have clearly understood economic impacts. Part of creating new businesses and new models is that there are unknown markets.

However, there are business coaches and nonprofit organizations who can serve as service providers in this area, either as an assistant to a technical service provider or directly interacting with the woodland steward. In addition, Reading the Woods offers an important rule of thumb for evaluating the economic aspects of any nature-based enterprise: the first priority is to ensure that the woodland steward does not suffer economic costs needlessly. Although we've not yet performed robust evidence-gathering, like surveying, anecdotally, it seems like risk mitigation is more important to small Appalachian landowners than maximum profitability. This seems to be because nature-based enterprises are way for families to stay on their land and continue traditions. If wealth is the primary goal, nature-based enterprises might not be the correct means.

Reading the Woods uses the metaphor of the tripod because each of these conditions is equally important; all three are needed to help it stand. But it's also apt because it illustrates how adjusting one leg requires adjusting the others to maintain balance. If a woodland steward has a fecund woodlot with near-infinite possibilities, but has very little time to devote to new enterprises, it makes sense to focus on those enterprises that are least labor-intensive or those which are most lucrative—maybe leasing the hunting rights. On the other hand, it doesn't matter how many maple trees are on a woodlot, or how booming the market for syrup, if the woodland steward is uninterested in making syrup. Just as it is impossible to be an expert in each of the scientific disciplines that can shape a woodlot evaluation, it isn't possible to expect service providers to be experts in all three sets of conditions. But it is possible to keep each leg of the tripod in mind, and to make sure that each gets fair emphasis in discussions with the woodland steward. It's also possible for service providers to increase their professional networks, to ensure they know who to reach out to when they need a different expertise.

To best make use of this method, you'll need some tools. Some technical service providers are mandated to use the tools of their employer or professional organization, but for those who need them, the Reading the Woods project team has developed a robust toolkit that has emphasizes all three legs of the tripod. The remainder of this orientation guide is dedicated to providing the basic tools for those who need them. And don't hesitate to reach out to Future Generations University; we have plenty more!

Step 1: Schedule and Conduct an Initial Assessment with the Woodland Steward(s)

The initial conversation between a technical service provider and the woodland steward is a critical first step. This is an opportunity to introduce Reading the Woods. Explain to the woodland steward(s) the objective of Reading the Woods, what information you'll be gathering in the assessments, how you will be using this information, and your estimated timeline.

During this initial step, ask the woodland steward to complete the self-assessment. The Woodland Steward Self-Assessment facilitates a connecting of the dots between the woodland stewards' capacity to expand or diversify a nature-based enterprise, their personal goals and visions, the forest and its production capacity, and the current market for timber and non-timber products and services. This can be completed with you or on their own by using the online Google Form or a printed form. Keep a record for yourself to be able to reference later. The information in this assessment will be used in the Whole Woods Stewardship Analysis for Sustainable, Nature-Based Enterprises.

Resources

Find the [Woodland Steward Self-Assessment](#) in the [Assessment Workbook](#). Options to complete the Woodland Steward Self-Assessment are as follows:

- A. The assessment can be sent to a woodland steward via email beforehand.
 - a. The woodland steward can complete and submit the assessment on the Google Forms application. This requires an internet connection.

OR

- b. The woodland steward can download and print the Google Form to complete by hand and submit the document to the technical service provider.

OR

- B. The technical service provider can complete the assessment with the woodland steward.
 - a. The technical service provider can complete and submit the assessment on behalf of the woodland steward on the Google Form application. This requires an internet connection.

OR

- b. If the meeting location between the technical service provider and the woodland steward does not have an internet connection, the technical service provider can download and print the assessment to complete by hand. Upon receipt of the completed assessment, the technical service provider will need to complete and submit the assessment in the Google Form on behalf of the woodland steward.

Step 2: Conduct a Whole Woods Assessment with the Woodland Steward(s)

The Reading the Woods Whole Woods Assessment is an assessment conducted by you and the woodland steward(s) with support from local specialists. The Whole Woods Assessment is a forest inventory that goes beyond an average timber cruise defined by the United States Forest Service.¹ The assessment evaluates the root layer, vine layer, forest floor, shrub layer, under story, canopy, and emergent layer of a forest. The forest inventory presents the woodland steward(s) with a comprehensive understanding of their forest. This step establishes a basis of information for you and the woodland steward(s) to begin “sieving out” potential income opportunities from all layers of the forest.

Resources

The Whole Woods Inventory Assessment worksheet is available to guide you through a detailed forest inventory. The worksheet includes:

- a checklist of items to bring with you
- a list of questions to ask
- important observations to make
- additional information to report

Find the [Whole Woods Inventory Assessment](#) in the Assessment Workbook.

Download and print additional resources from the [Library & Archive](#) to build a customizable Reading the Woods Field Journal to reference while in the field.

Reading the Woods is curating the Library & Archive and [The Directory](#) to assist you in finding the answers to your and the woodland steward’s questions during and after the whole woods assessment. The Library & Archive is full of materials and resources for information, intellectual development, and the enrichment of this community. You will find books, articles, podcasts, recorded radio programs, video tutorials, handbooks, photographs, field notes, and past meeting agendas and minutes. Access The Directory to contact local specialists with questions and to provide additional technical assistance to woodland steward(s).

[The Production Planning Matrix for Nature-Based Enterprises](#) is a resource designed to illustrate timber and non-timber forest products and services side-by-side to compare their unique characteristics and the opportunity to layer the enterprises under a single forest canopy.

¹“Cruising is the process of measuring forest stands to determine stand characteristics, such as average tree sizes, volume, and quality. The primary purpose of cruising is to obtain a volume estimation to appraise and prepare timber sales.”

<https://www.fs.usda.gov/forestmanagement/products/measurement/aboutus.shtml#:~:text=Cruising%20is%20the%20process%20of,appraise%20and%20prepare%20timber%20sales.>



Step 3: Complete a Whole Woods Stewardship Analysis for Sustainable, Nature-Based Enterprises

The Whole Woods Stewardship Analysis for Sustainable, Nature-Based Enterprises reviews the goals, visions, and capacities of the woodland steward(s) and the forest inventory. The analysis further evaluates the market, enterprise feasibility, financials, and the sustainability of a timber or non-timber product or service. Results from the evaluations will inform the woodland steward's decision-making process in identifying potential income opportunities supported by the forest.

Worksheets are available in the [Assessment Workbook](#) to facilitate each of the evaluations.

Step 4: Generate a Whole Woods Enterprise Plan

After completing the analysis and selecting timber or non-timber forest products and/or services to invest in, the Whole Woods Enterprise Plan is an opportunity to assess the viability of the selected enterprise(s) and plan for production. Complete the [Whole Woods Enterprise Plan](#) and give a copy to the woodland steward.

A Yearly Enterprise Tasks Plan worksheet is available for you and the woodland steward to create an annual production plan. The worksheet will outline the activity and the amount of labor required per enterprise to be accounted for in the enterprise budget as a labor expense.

A forest farming calculator and a whole wood enterprise budget allows for the woodland steward to project annual costs, revenue, net income, and return on investment per enterprise.

Step 5: Conduct a Post-Assessment with the Woodland Steward

Schedule a follow up visit with the woodland steward one year after developing the enterprise plan.

Find the Woodland Steward Post Assessment in the [Assessment Workbook](#). Options to complete the Woodland Steward Post-Assessment are as follows:

- A. The assessment can be sent to a woodland steward via email beforehand.
 - a. The woodland steward can complete and submit the assessment on the Google Forms application. This requires an internet connection.

OR

- b. The woodland steward can download and print the Google Form to complete by hand and submit the document to the technical service provider.

OR

- B. The technical service provider can complete the assessment with the woodland steward.
 - a. The technical service provider can complete and submit the assessment on behalf of the woodland steward on the Google Form application. This requires an internet connection.

OR

- b. If the meeting location between the technical service provider and the woodland steward does not have an internet connection, the technical service provider can download and print the assessment to complete by hand. Upon receipt of the completed assessment, the technical service provider will need to complete and submit the assessment in the Google Form on behalf of the woodland steward.

Technical Service Provider Self-Assessment for Reading the Woods

This self-assessment is for technical service providers who are interested in using the Reading the Woods tool. Please complete the self-assessment prior to participating in a Reading the Woods training*.

The self-assessment:

1. introduces the technical service provider to the Reading the Woods program and tool at Future Generations University;
2. asks the technical service provider to reflect on their existing knowledge of agroforestry, forest farming timber, and non-timber forest products (NTFPs);
3. evaluates their capacity to support woodland stewards;
4. and informs the Reading the Woods project team what professional development opportunities would be of benefit to service providers who wish to help establish nature-based enterprises.

*The technical service provider's information will not be published in association with the name of the technical service provider or any identifiable information.

1. Email *

Getting to Know You

Technical service providers of all backgrounds are invited to participate. In order to best serve you, we need to know you, your stakeholders, and the contributions that you are able to lend to the program.

2. Name

3. Please provide us with your preferred way of contact. (phone number, email address, and/or snail mail)

4. What is the name of the agency, nonprofit organization, or private business with which you are affiliated as a service provider? If you work with/for more than one organization, please list the all.

5. What is your professional title(s)?

6. What services do you regularly provide and to whom? (list the most common services that you provide)

7. In what geographical area of West Virginia do you primarily serve?

8. What types of questions or concerns do you commonly address with farmers, landowners, or land stewards? Please list them here.

9. How often do you receive questions or concerns related to agroforestry, forest farming, NTFPs

Mark only one oval.

- 1 or more times per week
- Once a month
- Twice a year or less
- Never

10. How confident do you feel answering questions or helping landowners with agroforestry, forest farming, and/or timber and non-timber forest products? (1 you are not confident, 3 you are very confident)

Mark only one oval.

1 2 3

"I don't know" "I'm an expert."

11. When I don't have a ready answer for the landowner's question, I find the answer myself by: (select all that apply)

Check all that apply.

- Conducting an online search (ie. Google)
- Research in published sources (i.e., manuals or books)
- Contacting a colleague or specialist
- Contacting a forest farmer in the local area
- Other: _____

12. I typically connect the person I am assisting directly to the information needed by: (select all that apply)

Check all that apply.

- Giving the woodland steward (landowner) a website address
- Giving or recommending the woodland steward (landowner) a book title
- Giving the woodland steward (landowner) the contact information of an "expert" who is likely to have the answer
- Other: _____

13. Do you feel you have adequate access to the appropriate resources or contacts to either find answers to questions and/or where you can connect a land steward? Please explain.

Nature-based Enterprise Values

The Reading the Woods project wants to know which non-timber forest products are valued by technical service providers and stakeholders.

14. Do you walk with a landowner/woodland steward on their land?

Mark only one oval.

Yes

No

Other: _____

15. When walking in a landowner/woodland steward's forests, what have you focused on? (select all that apply)

Check all that apply.

The timber value

Tree health

The forest floor

Wildlife or fisheries

Pest management

The needs and wants of the land steward

Plant identification and invasive plant management

An assessment of the economic value of non-timber forest products

Other: _____

16. Do you usually discuss economic or other values of the forest with landowners/woodland stewards? If yes, please explain. If not, why not?

17. In general do you consider non-timber forest products (NTFPs) to have an economic value for landowners/woodland stewards?

Mark only one oval.

Yes

No

Maybe

18. If you answered "yes" to the question above, which non-timber forest products (NTFPs) do you think have the greatest value? Why?

19. If you answered "no" to the question above, why?

20. Do non-timber forest products have any other significance besides economic value? If yes, please explain its significance and to whom it is significant to.

21. Which non-timber forest products do you identify as having the greatest significance? And, why?

22. With which of the following non-timber forest products or ecosystem services do you have the most expertise? (plant I.D., growing or producing, processing, markets, regulations, etc.)

Check all that apply.

- Goldenseal
- Ginseng
- Black cohosh
- Echinacea
- Witchhazel
- Fruit trees (paw paws, persimmons)
- Berries (elderberries, blueberries, raspberries, blackberries, huckleberries)
- Cultivated mushrooms
- Tree Syrups (maple, walnut, sycamore)
- Forest greens (ramps, nettles, dandelion, wood sorrel)
- Timber Products (lumber, charcoal, yellow poplar bark)
- Greenery (garlands, wreaths, boughs, pine needle, forest grown christmas trees)
- Grapevines
- Tree needles and cones
- Firewood
- Hunting leases
- Plant nurseries
- Forest bathing
- Bird watching or birding
- Outdoor Recreation (mountain bike trails, xc trails, forest-based education)
- Carbon sequestration
- Cabin rentals
- Other: _____

23. For which of the following products or services are landowners/ woodland stewards most interested, if any?

Check all that apply.

- Goldenseal
- Ginseng
- Black cohosh
- Echinacea
- Witchhazel
- Fruit trees (paw paws, persimmons)
- Berries (elderberries, blueberries, raspberries, blackberries, huckleberries)
- Cultivated mushrooms
- Tree Syrups (maple, walnut, sycamore)
- Forest greens (ramps, nettles, dandelion, wood sorrel)
- Timber Products (lumber, charcoal, yellow poplar bark)
- Greenery (garlands, wreaths, boughs, pine needle, forest grown christmas trees)
- Grapevines
- Tree needles and cones
- Firewood
- Hunting leases
- Plant nurseries
- Forest bathing
- Bird Watching or Birding
- Outdoor Recreation (mountain bike trails, xc trails, forest-based education)
- Carbon sequestration
- Cabin rentals
- Other: _____

24. Which non-timber forest product(s) are you most interested in learning more about?

A Professional Development Opportunity

The Reading the Woods project would like to know what incentivizes you to participate in professional development training programs.

25. Do you wish to learn more about forest farming and nature-based enterprises?

Mark only one oval.

Yes

No

Maybe

26. If you answered yes to the previous question, is this knowledge applicable to your current work as a service provider?

Mark only one oval.

Yes

No

Maybe

27. How easy, or difficult would it be to incorporate the Reading the Woods tool into your existing work? Explain. (Please include possible limitations or constraints, existing resources and capacities.)

28. Where do you serve landowners/woodland stewards? (select all that apply)

Check all that apply.

In the office of your agency, organization, or business

During on-farm visits

Over the phone or via email

Other: _____

29. On average, how much time do you currently spend during your visits with a landowner/woodland steward?

30. What time of year is best for you to participate in a Reading the Woods tool training?

31. Would the opportunity to earn professional education credits help justify your time to participate in a Reading the Woods training and other project activities?

32. Would earning a certificate help justify your time in the Reading the Woods training? Explain.

33. What other professional development benefits would be an incentive for you to participate in Reading the Woods program?

This content is neither created nor endorsed by Google.

Google Forms

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

Woodland Steward Self-Assessment

Welcome to Reading the Woods! This self-assessment is for those who have access to and decision making power over forested land in the state of West Virginia. We hope that this self-assessment inspires you to see with fresh eyes the enterprise potential of your forest. The questions in this assessment are meant to connect the dots between you and your families' goals and vision, the environmental characteristics of a forest, and the diverse enterprise opportunities for timber and non-timber forest products in West Virginia.

CONFIDENTIALITY AGREEMENT

The information provided in this assessment will not be published in association with the name of the technical service provider, the woodland steward, or any identifiable information. The information is managed and secured by Future Generations University.

ACKNOWLEDGEMENT

The Reading the Woods project team would like to acknowledge the decades of published materials that precede the publication of the Woodland Steward Self-Assessment. We heavily borrowed from the work of Jonathan S. Kays and Joy Drohan's "Forest Landowner's Guide to Evaluating and Choosing a Natural Resource-Based Enterprise"; The Yew Mountain Center's "West Virginia Forest Farming Initiative Site Visit Intake Questionnaire"; The Center for Agroforestry at the University of Missouri's "Training Manual for Applied Agroforestry Practices"; the USDA Forest Service's "Income Opportunities in Special Forest Products: Self-Help Suggestions for Rural Entrepreneurs"; United Plant Savers and Rural Action's "The Forest Farmers Handbook: A Beginners Guide to Growing and Marketing At-Risk Forest Herbs"; and Northeast SARE's "Reading the Farm: Training Agricultural Professionals in Whole Farm Analysis for Sustainable Agriculture, A Planning and Facilitation Guide."

We would like to express our deepest appreciation and gratitude to the Reading the Woods Advisory Committee who contributed their experiences, published works, resources, and expertise on forest farming in Appalachia to the project as a whole.

Reading the Woods is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

With gratitude,

The Reading the Woods Project Team

Getting to Know YOU

1. Name

2. Age

3. How do you self identify?

Mark only one oval.

- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- White
- Hispanic or Latino
- Multiracial
- Other: _____

4. Gender

Mark only one oval.

- Woman
- Man
- Non-binary
- Prefer not to say
- Gender not listed

5. Email Address

6. Telephone Number

7. What is your tenure relationship to the forested land?

Check all that apply.

- I own the forestland.
- A family member or friends owns the forest and they let me use it. There is no written agreement.
- I lease the land.
- I have permits to access and harvest from public lands.
- I do not currently have access to a forest.
- Other: _____

8. Why are you interested in working with a technical service provider on sustainable forest management? What do you hope to get out of this service?

9. What are your personal and/or family goals or visions for the forest in the short-term and long-term? Please explain.

10. Do you currently manage the land (in part) as a farm?

Mark only one oval.

Yes

No

Other: _____

11. If you answered "yes" to the question above, what crop(s) do you grow or livestock do you raise?

12. If you answered "no" to the question above, do you wish to farm in the future on the land you manage?

Mark only one oval.

Yes

No

Maybe

Other: _____

13. If yes, what crop(s) do you wish to grow or livestock do you wish to raise?

14. Do you currently manage the forested part of your land?

Mark only one oval.

Yes

No

Other: _____

15. If you answered "yes" to the question above, what benefits do you derive from your forested land? (ie. provides shade for cattle, timber harvest, hunting, walking paths, gathering wild food)

16. Do you have a forest management plan for your forests?

Mark only one oval.

- Yes
- No
- Maybe
- Other: _____

17. If you answered yes to the question above, to what extent have you been following the plan?

18. Do you have previous experience working with a registered forester?

Mark only one oval.

Yes

No

Other: _____

19. If yes, are you still in contact with the registered forester?

Mark only one oval.

Yes

No

Other: _____

20. Do you wish to manage the forested land as forest in the future?

Mark only one oval.

Yes

No

Maybe

Other: _____

21. What benefits do you see gaining from the forested land?

22. Have you practiced agroforestry or forest farming on your land? Please explain.

23. Do you have experience identifying, cultivating, managing, gathering, preparing, or selling non timber forest products, or "wild foods"? Please explain.

24. What infrastructure (buildings, fences, water pump, hoop house) and/or equipment (tractor and implements, tools, machines) do you currently own or have access to?

Your Forest

25. Briefly describe all the forested land that you have access to and decision making power over. For each parcel please include: (a) size and location of each tract; (b) distance from home; (c) access to roads; (d) number and type of structures; and (e) other pertinent information.

26. What tree species are in the forest?

27. On average, about how large are your trees in diameter?

28. What do you know about the forest soils?

29. How would you describe the terrain?

Production (Time & Labor)

30. Are you currently involved in the management of the land or forest?

Mark only one oval.

Yes

No

Maybe

Other: _____

31. If yes, what role do you fill?

32. If yes, is this the role you wish to continue to fill? Explain.

33. Do you plan to be involved in future forest-based enterprises?

Mark only one oval.

Yes

No

Maybe

Other: _____

34. If yes, what role will you fill?

35. How much time per week do you currently allocate to the management of the land?

Mark only one oval.

A few hours.

Ten - fifteen hours.

30 + hours.

Other: _____

36. How much of this time is allocated to the forested land?

Mark only one oval.

A few hours.

Ten - fifteen hours.

30 + hours.

Other: _____

37. How much time per week do you have/will you have to allocate to a future forest enterprise?

Mark only one oval.

- A few hours.
- Ten - fifteen hours.
- 30 + hours.
- Other: _____

38. In which season(s) do you have the most time to dedicate to the forest enterprise activities (planting, harvest, processing, marketing, hosting tours, etc.)? Check all that apply.

Check all that apply.

- Fall
- Winter
- Spring
- Summer

39. Do you currently have formal or informal employees working on the land? Please include yourself and/or family members.

Mark only one oval.

- Yes
- No
- Maybe

40. Please describe their activities and whether part-time or full-time.

41. In the past, did you employ labor? Please include yourself and/or family members.

Mark only one oval.

Yes

No

Other: _____

Markets

42. Do you currently sell any products or services?

Mark only one oval.

Yes

No

Other: _____

43. What products or services do you sell?

44. Are the products grown or raised on the land?

Mark only one oval.

Yes

No

Other: _____

45. Are the services provided on the land?

Mark only one oval.

Yes

No

Other: _____

46. What markets do you sell your product(s) into?

Check all that apply.

On-farm Stand or Shop (Attended)

On-farm Stand or Shop (Unattended honesty box)

Farmers market(s)

Small wholesale markets (restaurant, small retail store)

Large wholesale markets (a grocery chain, a large food hub or aggregation center, a food bank)

Commodity market (domestic and/or global markets)

Other: _____

47. How do you access those markets?

Check all that apply.

- I drive in my car.
- I am driven by someone else.
- I ship the product.
- The buyer(s) picks up the product(s) from your place of business.
- Other: _____

48. Are your product(s) currently certified? (USDA Organic, Kosher, Certified Humane, Non-GMO)

Mark only one oval.

- Yes
- No
- Other: _____

49. Do you wish to sell certified products in the future?

Mark only one oval.

- Yes
- No
- Maybe
- Other: _____

50. If yes, which certification(s) would you like to obtain?

Check all that apply.

- USDA Organic
- Certified Naturally Grown
- Forest Grown Verified
- Non-GMO
- Kosher
- Certified Humane
- Other: _____

51. How do you track your profit/loss on the products and/or services you sell?

52. Which licenses/permits/registrations/insurances/inspections are you required to have for the products or services you sell?

Financial

53. Before we start the financial section, can you share what your financial goals are for the forest based enterprise?

54. In order to start and operate a business, no matter how large, it is important to understand basic business planning. Do you have any experience writing a business plan? (i.e. for obtaining a traditional bank loan or applying for a grant)

Mark only one oval.

Yes

No

Other: _____

55. Have you written a business plan for the forest farming enterprise you are considering? Why or why not?

56. Starting an enterprise will require financial resources. Are you willing to use borrowed or liquid capital to make investments needed to start an enterprise?

Mark only one oval.

- Yes
- No
- Maybe
- Other: _____

57. Do you use a service provider to keep your books and/or do your taxes?

Mark only one oval.

- Yes
- No
- Other: _____

58. If yes, how much do you do vs. how much does your service provider do?

59. If no, how do you do these processes yourself?

60. Do you have an existing business accounting system (if yes, what is it?). OK if it is a shoebox, quickbooks, but important to find out what it is or if it's nothing at all.

61. Do you employ cash accounting or accrual accounting method for your book keeping?

62. Do you depreciate equipment on your taxes to reduce your tax liability?

Mark only one oval.

Yes

No

Other: _____

63. Are you open to learning more about business book keeping as part of what you learn as you establish your new enterprise?

Mark only one oval.

- Yes
- No
- Maybe
- Other: _____

Sustainability

64. What are your enterprise goals for the next three to five years? (Scale, reach new markets, create new products or services, revenue, etc.)

65. What are your enterprise goals for the next ten years? (Scale, reach new markets, create new products or services, revenue, etc.)

66. Are you planning to manage the enterprise operation for the next three to five years?

Mark only one oval.

Yes

No

Maybe

Other: _____

67. Is there a succession plan in place for managing the land you steward?

Mark only one oval.

Yes

No

Maybe

Other: _____

68. If not, would you like to start writing a succession plan?

Mark only one oval.

Yes

No

Maybe

Other: _____

The End

69. What questions do you have?

This content is neither created nor endorsed by Google.

Google Forms

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

Whole Woods Inventory Assessment

Statement of Purpose:

The purpose of this worksheet is to document the characteristics of the forest during your whole woods assessment. These are suggested topics to be discussed and questions that need to be addressed to complete a whole woods assessment. Collecting this information will be very helpful as this will be the baseline knowledge for prescribing strategies for planning and implementing non-timber forest products (NTFPs) and related activities in the forest.

Note: Not all of these questions will be answered during the forest walk. You may need to research the answers prior to or after the forest walk.

Download and print the pdf document to take with you on your forest walk.

Date of the visit:

Time of the visit:

Name of the land steward (owner):

Location/address:

What is the weather today?

Temperature:

GPS Mapping (optional)

1. Begin your GPS instrument documentation to be used for the Google Earth software application. See pages 8 - 31 of [*Inventory and Mapping: A Beginner's Guide to Basic Inventory and Digital Mapping of Non-timber Forest Products on Small Private Forestlands*](#) in the Field Journal Resources folder in the online database for more information about using Google Earth.

What to document on your map:

1. Notable plant, animal, fungi species.
2. Any wildlife or livestock presence.
3. Structures
4. Trees (specie name, age, health, size)
5. Water
6. Anything else significant.

Photograph notable items and document its location.

1. Is there a map of the woodlot? (obtain or make a copy) If not, create a map using a GPS handheld device, print a map of the property, or sketch (for future reference and planning).
2. How did you access the woodlot (walk or drive)? Was it difficult to access?
3. What plants, animals, and fungi species did you observe in the woodlot (What are the predominant tree species, understory species, etc.)
4. What is/are the landscape(s) of the woodlot? (ie. grades or steepness of slope, aspect)
5. To determine the range of elevations, measure the elevations of the woodlot at different points.
 - a. Top of the slope _____ ft.
 - b. Bottom of the slope _____ ft.
 - c. In between _____ ft.
 - d. Other comments?
6. How would you describe the forest canopy? (ie. open to sunlight, dense canopy with little light)
7. Do you see invasive species? If so, please explain or describe.
8. Do you see wildlife? Footprints or feces?
9. Are there any notable springs, streams or bodies of water in the forest?
10. What other site related factors might impact NTFPs? I.e., (predation that might require fencing, steep slope that might hinder planting or harvesting)
11. Is there a forest management or stewardship plan for the woodlot? (obtain a copy)

12. What NTFPs are currently produced?
13. What NTFPs are found or being cultivated on nearby/neighboring lands?
14. Are there any structures or other features in the woodlot that should be noted that may impact NTFP production? (ie. fencing, hunting sheds, roads) (Note: these features should be included on the map.)
15. Some NTFP plantings or fungi might require occasional watering (i.e., after planting or inoculation). Is there an adequate source of water for irrigation? If so, describe?
16. Is hunting allowed on the land? By the landowner or by others?
17. Have there been any wild fires on the woodlot or in nearby forests?
18. What is the average temperature range throughout the year?
19. What is the estimated rainfall throughout the year in the forest?
20. Please add other notes that may help determine the potential for NTFP production on the woodlot in the space that follows.

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

Field Questions

List questions that arise during your forest walk here. Plan to answer these questions prior to starting the Whole Woods Stewardship Analysis for Sustainable Enterprises. Refer to The Directory and The Library & Archive to help you answer these questions.

Example Questions: What is the moisture of the soil in the winter? Do I need to come back in a couple of months to determine if a particular NTFP will do well on this woodlot?

Download and print the pdf document to take with you on your forest walk or document your questions in your notebook.

1. _____
2. _____
3. _____

Woodland Steward(s) Evaluation Worksheet

Statement of Purpose:

The Woodland Steward Evaluation Worksheet reviews the goals, visions, and capacities of the woodland steward(s). The Woodland Steward Self-Assessment and your conversations with the woodland steward provides the necessary information to complete this worksheet.

1. What is/are the woodland steward(s) vision and goal for the forest?
2. Which non-timber forest product(s) does the land steward express an interest in learning more about and/or investing in?
3. What is the land tenure relationship between the woodland steward and the forest?
4. If the woodland steward leases or holds a permit, what does the lease or permit stipulate about how the forest can be managed, what can be harvested, and what is the duration of the lease or permit?
5. How many years will the woodland steward be the primary manager of the forest? Please consider the age of the woodland steward(s), the land tenure agreement, and long term goals of the woodland steward(s).

_____ years
6. Who will be directly involved in the enterprise operations? List all below with age, relationship to woodland steward, hours per week committed, and compensation.

7. Which season does the woodland steward(s) and/or the enterprise labor force have the greatest capacity to manage an enterprise? Circle all that apply.
- a. Winter
 - b. Fall
 - c. Summer
 - d. Spring
8. What type(s) of market(s) does the woodland steward wish to access? Check all that apply.
- Direct
 - Wholesale (Retail, Restaurant, Food Hub)
 - Bulk/Commodity

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

Market Evaluation Worksheet

Statement of Purpose:

The Market Evaluation Worksheet asks you and the woodland steward to assess past, current, and future market potential of the product(s) or service(s). Reference the Library & Archive and the Directory for up to date market information.

1. List the product(s) or service(s) that the woodland steward wishes to sell.
2. Describe each product and/or service.
3. When would the harvest and sale occur?
4. Who will buy the product?
5. What markets currently sell the product(s) or service(s)?
6. Who is buying the product(s) or service(s)?
7. How do you reach the buyers?
8. What is the average, most up-to-date market price per market?
 - Bulk
 - Wholesale
 - Direct to consumer

Porter Five Forces Model:

The model measures current competition and asks how the product(s) and service(s) distinguish itself from others.

I. Competition in the Industry	
II. Threat of Substitute Products or Services	III. Bargaining Power of Buyers
IV. Threat of New Entrants	V. Bargaining Power of Suppliers

Enterprise Feasibility Worksheet

Statement of Purpose:

The Enterprise Feasibility Worksheet is designed to identify potential barriers to the success of each timber or non-timber forest product and service identified by you and the woodland steward, thus far. This worksheet builds upon the results of the woodland steward's Whole Woods Assessment and the Woodland Steward(s) Evaluation Worksheet.

1. Does the forest provide the necessary conditions for the timber and non-timber forest products and services identified by you and the woodland steward(s)?
2. If you're assessing more than one enterprise, how do the products or services interact in a single landscape? Is it a mutually beneficial relationship? Ie. The maple stand creates an ideal habitat for cultivating wild-simulated ramps.
3. Which timber and non-timber forest product(s) or service(s) are "low-hanging fruit" in the forest? List below.
4. How would you rate each of the timber and non-timber forest product(s) or service(s) on their ease of implementation? List and assign a value below. 1 (easy; already exists) to 10 (very difficult; labor, equipment, investment capital, etc. is high)
5. Do you have access to the necessary inputs to start the enterprise and keep it going?
6. Is there existing infrastructure to support the enterprise? List and describe the infrastructure below.
7. Is there infrastructure nearby that the woodland steward has access to? List and describe the infrastructure below.
8. Is there existing labor to meet the needs of production? If not, do they have access to additional labor?
9. Of the markets selected by the woodland steward(s), do they exist? Or, will the woodland steward be creating a new market?
10. Do they have the proper transportation, if necessary, to access those markets?

11. What is required of the woodland steward to enter those markets? (Ie. GAP certification, USDA Organic certification, business license, etc.)
12. Are there any county, state or federal regulations that the woodland steward needs to abide by?
13. Does the woodland steward have a liability insurance policy?

Strengths, Weakness, Opportunities, and Threats (SWOT) Analysis

<u>Strengths</u>	<u>Weaknesses</u>
<u>Opportunities</u>	<u>Threats</u>

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

Financial Evaluation Worksheet

Statement of Purpose:

The purpose of this worksheet is for the technical service provider and the woodland steward(s) to evaluate the woodland steward's financial status and the financial needs to start a new enterprise.

Note: Some woodland stewards may not wish to share this information.

1. Identify assets (cash) and liabilities (debts).
2. Does the woodland steward(s) have access to capital?
3. Is the woodland steward willing to borrow money or spend cash (liquid capital) to make investments in order to start an enterprise?
4. What are the anticipated upfront costs for each enterprise? List below.
5. Are there financial assistance programs available?

Glossary:

Assets- An asset is a resource with economic value that an individual or business owns or controls with the expectation that it will provide a future benefit.

Capital- Capital is cash flow. The capital of a business is the money it has available to pay for its day-to-day operations and to fund its future growth. There are four types of capital: working capital, debt, equity, and trading capital.

Liabilities- Something an individual or business owes, usually a sum of money. For example, loans, short-term debts due to a business's suppliers or other creditors (accounts payable), or mortgages.

Reading the Woods Whole Woods Enterprise Plan

Statement of Purpose: The Whole Woods Enterprise Plan is a summary report of the observations made and information collected during the whole woods assessment.

1. Property Information

Include the name(s) of the woodland steward(s), county, acreage, and a reference to location (i.e., closest town and major highways).

2. The Woodland Steward's Goals and Objectives for the Forest

List the woodland steward's goals and objectives for the property in order of importance.

3. Forest Description

Give an overview of the characteristics of the forest site based on information collected during the forest inventory and any additional woods assessments.

4. Nature-based Enterprise(s)

List existing and potential nature-based enterprise(s). Include a write-up for each enterprise that you, the woodland steward, and any specialists identified as a potential opportunity. These write-ups may include: 1) a brief description of each product or service; 2) the selected forest site(s); 3) infrastructure needs; and 4) estimate projected enterprise production costs and revenues (i.e., current markets and prices for products and/or services and potential total revenue).

5. Action Plan

List your recommendations for new products, production techniques, and expansion of existing products/markets.

Woodland Steward Post-Assessment

It's been one year since you and the woodland steward began to develop a Whole Woods Enterprise Plan. We recommend that you ask the woodland steward a series of questions to:

- 1) get an update on the forest and the enterprise plan,
- 2) identify any amendments that need to be made to the plan,
- 3) and whether or not the woodland steward needs additional mentoring services.

CONFIDENTIALITY AGREEMENT

The information provided in this assessment will not be published in association with the name of the technical service provider, the woodland steward, or any identifiable information. The information is managed and secured by Future Generations University.

* Indicates required question

1. Email *

2. Is the woodland steward putting into practice the Whole Woods Enterprise Plan? If not, why? *

3. What is the progress on the Whole Woods Enterprise Plan? *

4. Did the woodland steward make money? Did they lose money? *

5. Are there any amendments that need to be made to the plan? *

6. Can you identify any new complementary venture opportunities? *

7. Does the land steward or forest have increased capacity? Please explain. *

8. How does the woodland steward(s) rate their experience working with you and the Reading the Woods tool? Please explain.

This content is neither created nor endorsed by Google.

Google Forms

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE21-168.

