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## Section 1: The NCX Market

### Overview

#### 1. What is the Natural Capital Exchange?

NCX is a carbon marketplace that connects corporations to the landowners, habitats, and communities they impact through our carbon marketplace. NCX pays landowners to defer timber harvesting activity for a one-year term. This delayed harvesting activity results in additional carbon stored on the landscape. Companies then pay for this additional carbon in the form of credits, primarily to offset emissions and/or reach sustainability goals.

## **2. Who buys these carbon credits?**

Typical buyers are companies committed to investing in local communities, channel partners seeking quality offsets, and multinationals pursuing net-zero goals. NCX is also a buyer of NCX credits.

## **3. What is the time commitment for NCX?**

Participating in an NCX cycle requires a commitment of one year. Participants may choose to continue participation in subsequent years under new agreements.

## **Eligibility**

### **4. Who can request an assessment?**

Any timberland or woodland owner (or legally authorized manager) in the contiguous US who has (1) the right to harvest timber on the property and (2) could reasonably accept a timber sale offer in the upcoming year, would be eligible to participate by requesting an assessment.

### **5. How many acres do I need to own in order to participate?**

There is no acreage minimum to participate in NCX. However, a landowner will need to have at least 5 Harvest Deferral Credits to be able to submit an offer to participate in a given NCX cycle. For reference, a 5-acre property with merchantable timber and strong markets has been able to meet this minimum requirement.

### **6. Does my property need to be SFI or FSC certified in order to participate?**

No, certification of this type is not required for NCX.

### **7. Do I need to enroll my entire property?**

Yes. In order to ensure the validity of NCX carbon credits and reduce leakage, a seller is required to enroll all of the property they own or manage across the contiguous United States. As noted in the Seller Agreement, the Assessment Area in which NCX conducts its assessment over must satisfy one of the following two conditions: it is either (i) all timberland property within the contiguous United States that is owned by a particular owner or set of beneficial owners; or (ii) all timberland property within the contiguous United States over which a single property manager has been given legal managing authority on behalf of a particular owner or set of beneficial owners.

This requirement doesn't mean you need to defer harvesting across the entire ownership, but NCX needs to be able to monitor harvest activity across the entire ownership to ensure that you are meeting your deferral commitment and not increasing harvesting on un-enrolled parcels. This includes parcels that have been harvested recently and parcels that are up for sale.

**8. My property has forests of different ages. Do I need to enroll portions of the property individually based on their age?**

No. The NCX program treats all of your stands as a single participating property. Property residing under a single ownership structure should be enrolled as a single NCX account.

**9. Is it okay if my property crosses state lines?**

Yes, you are required to enroll all of your landholdings even if the property crosses state lines. Your carbon will be assessed in the same manner as that of a property that is contained in one single state.

**10. If a landowner is the sole member of two different LLCs, do they both need to be enrolled in NCX for that person to be eligible to participate?**

Yes, the properties under the LLCs would need to be mapped out in the same account, due to an identical ownership structure. The requirement for NCX participants to enroll all property under their ownership or management is designed to reduce the potential for internal “activity-shifting” leakage (View the Leakage section below).

**11. Do I have to own my property outright in order to participate?**

To sign the NCX Seller Agreement, you will need to be the legal owner of the land or a valid legal representative of the owner(s). Property held in common by a family or several individuals is therefore eligible for the program, as long as the person who signs the agreement is a valid legal representative.

**12. Can I participate if my property is already under a carbon or conservation easement?**

It depends. A landowner can only enroll in NCX along with an easement if the easement doesn't prohibit harvesting activity. If it does explicitly prohibit harvesting, these acres aren't eligible for the program and should be excluded from what's identified on our interactive platform. NCX pays for the deferral of predicted harvesting activity on your property, so if your property is under an easement that already restricts harvesting activity, then the NCX framework will not apply.

If only a portion of your property is under a carbon or conservation easement, you should exclude that portion when submitting property holdings and notify the Landowner

Success team so that appropriate measures can be taken to record this omission. You can contact our team at [landowners@ncx.com](mailto:landowners@ncx.com) if you are unsure about eligibility regarding an existing or proposed easement.

### **13. Why does the display imagery of my property look outdated in my landowner account?**

During the assessment, NCX uses a combination of recent remotely sensed data and field measurements to assess the carbon on your property, ensuring that our carbon estimates are up to date. In contrast, the imagery on [ncx.com](http://ncx.com) is sourced from the company Mapbox and provided solely to facilitate the drawing of property boundaries. In some cases, Mapbox imagery will be less recent than the imagery sources NCX uses to calculate eligible carbon. If you are having difficulty mapping out your property boundaries, please email us at [landowners@ncx.com](mailto:landowners@ncx.com).

## **Program Terms**

### **14. Where can I find a copy of the Seller Agreement?**

If you are going through the assessment process, an example Seller Agreement is linked in your NCX landowner account under Example NCX Seller Agreement. We've also linked the document here: [Example NCX Seller Agreement](#). Please read through this document for more information on program terms and conditions, eligibility, and payment.

### **15. Will NCX be visiting my property?**

Possibly. A subset of landowners with accepted bids will be selected for ground measurement for additional verification. By submitting an offer and signing the NCX Seller Agreement, you are granting NCX and its affiliates the right to access the property for cruising. These visits are coordinated and paid for by NCX, and will not be undertaken without providing notice to the landowner in advance, however, cruising may impact recreational activities like hunting. While NCX will not prevent you from hunting during this window, we do require your property to be open and accessible to professional foresters. If you feel that it would be unsafe for yourself or the foresters, we recommend delaying participation until a time when the property can be safely assessed

Cruising occurs at the end of the Performance Period and will commence about 60 days before close.

### **16. What will you do with my data?**

NCX collects information about you and your property only to the extent it's needed to administer the NCX program. Data provided by NCX participants, including their property

boundaries, will not be shared with third parties except for in aggregate and/or anonymized for legitimate purposes of academic research, program certification, or the like.

**17. How will NCX confirm I own the property enrolled?**

At the start of each Performance Period, a subset of landowners with accepted bids will be selected to provide proof of property ownership. The Landowner Success Team will notify you via email if you're selected to participate in this process.

**18. Are there any penalties for noncompliance?**

Yes. As a starting point, payments are only made to sellers for the quantity of carbon they successfully deliver. Failure to deliver the agreed amount of carbon will result in diminished payments to landowners for the credits that are delivered. In severe cases, sanctions such as a prohibition on participating in future NCX cycles is possible.

**19. Does the contract automatically renew every year?**

No. Landowners will need to re-enroll after the end of the 1-year harvest deferral period if they are interested in doing so. This is permissible and encouraged. Landowners will be asked to confirm their property information is still accurate and then request an updated Eligibility Report.

**20. What happens if a portion or all of the land under agreement changes ownership during the year?**

While the NCX Seller Agreement does not constitute a legal encumbrance on the property, and therefore does not strictly "run with the land", the original owner is still responsible for delivering the Harvest Deferral Credits that were accepted at the start of the Performance Period. If you plan to sell your property during the one-year Performance Period, you should disclose your participation in NCX with the new owner.

**21. Does NCX dictate which acres to cut, how to cut them, or where to allocate harvests?**

No, accounting is done in aggregate over an entire participating property. Allocation of harvests is completely at the discretion of the landowner, as long as property-level deferral commitments are met.

**22. How does NCX address timber maintenance, such as thinning and controlled burns?**

The NCX program makes no prescriptions about specific management practices; it solely obligates the seller to retain a certain amount of standing timber on the property. While a

landowner is free to engage in thinning or controlled burns on the property, these factors should be considered when submitting an offer.

If landowners are conducting timber stand improvements, removing woody invasive species greater than 2” diameter, and/or thinning, those volume reductions should be accounted for prior to submitting an offer. Please refer to your Eligibility Report for conversions.

**23. How does NCX make money from NCX?**

NCX charges a fee to buyers so that this program remains free for landowners.

## **Section 2: Seller Offers and Pricing**

### **Selling Process**

**24. Who is allowed to sign the NCX Seller Agreement?**

The NCX Seller Agreement binds the landowner to a set of commitments and obligations, and makes claims on their behalf. Therefore, the Seller Agreement must be signed by an owner, legal manager, or otherwise authorized representative acting on behalf of an owner or set of beneficial owners. If you are not an authorized representative, you will have the option to send the Seller Agreement to the appropriate individual.

NCX encourages sellers or representatives to review the Terms and Conditions outlined with legal counsel.

**25. When is the last day to request an assessment?**

The deadline to request an assessment will be two Thursdays prior to the start of the one year Performance Period. This setup ensures adequate time to conduct an assessment and that interested landowners can submit an offer before the final weekly matching event.

For the Fall 2022 cycle, the last day to request an assessment is September 15, the final offer/bid matching date is September 28 (matching will occur on the 29th at 10 AM PDT), and the Performance Period starts on October 1.

**26. What format can I submit offers in?**

Sellers can submit offers in \$0.50 increments.

NCX requires a minimum offer, which is the greater of:

- 5 Deferral Credits; or
- If the Harvest Deferral Credits specified in the offer is less than 10,000 Deferral Credits, 20% of the Maximum Harvest Deferral; or
- If the Maximum Harvest Deferral specified in the offer is greater than or equal to 10,000 Deferral Credits but less than 100,000 Deferral Credits, 10% of the Maximum Harvest Deferral; or
- If the Maximum Harvest Deferral specified in the offer is greater than or equal to 100,000 Deferral Credits, 5% of the Maximum Harvest Deferral

**27. How should I structure my offer if I have harvested since Basemap was last updated or plan to harvest during the one-year Performance Period?**

NCX will generate an Eligibility Report that includes the number of Harvest Deferral Credits (HDCs) you can offer to participate in the Natural Capital Exchange. Also outlined in the Eligibility Report is a conversion table that can be used to translate HDCs to board feet or green tons.

If you have harvested since Basemap was updated or plan to harvest during the one-year Performance Period, you should reduce the volume of HDCs you offer, using the conversion tables included in your Eligibility Report to calculate the number of HDCs that volume reflects. Additionally, you can refer to the Seller Offer Example included in Step 2 of the Selling Process for a step-by-step overview.

**28. How do I know how much to offer my credits for?**

One of the benefits of the Natural Capital Exchange and how it's structured is that participants have the flexibility to choose the price point that works best for them based on their unique needs and motivations. NCX provides price guidance to offer visibility into the offers and bids matched, but ultimately as a participant, you get to choose how much you'd need to be paid to defer harvest activity.

You can find more information about how to structure your offer in:

- Your Eligibility Report
- Seller Offer Example (Step 2 of the Selling Process)
- Recent Transactions (Step 3 of the Selling Process)

**29. What does the *Recent Transactions* section reflect?**

Recent transaction information displayed reflects the average per credit price based on what buyers have paid.

**30. How is my offer matched?**

Landowner offers are matched to equally priced buyer bids (e.g. \$20 offers match \$20 bids) in the order in which they are received. Seller offers and buyer bids are matched weekly on Thursdays.

If there are no equally priced offers and bids, then the closest lower-priced landowner offers will be matched with buyer bids (e.g. \$19.50 offers match \$20 bids) and the difference will be paid to the landowner.

**31. Can I change my offer after it's been submitted?**

You can modify your offer up to 10 AM PDT on the final Thursday before the Performance Period begins or the point at which your offer is matched with a buyer bid, whichever comes first. Updating your offer will affect its order in relation to other sellers' offers and will be based on the time of the change, not your original submission. Seller offers and buyer bids are matched first by price then by the order in which it was submitted (first come, first serve).

**32. When does my offer become binding?**

To finalize your offer you'll need to submit the volume and price you'd be willing to defer harvest activity for, confirm seller information, and sign the DocuSign Seller Agreement. Your offer only becomes binding once matched with a buyer bid, at which time you will receive a Notice of Acceptance through the Landowner Platform as confirmation.

**33. If my offer is accepted, but I only sell a portion of my eligible credits, can I sell the remaining balance in the next NCX cycle?**

Not at this time. The Natural Capital Exchange is designed to support a single participant's enrollment in one quarterly program cycle held within the associated Performance Period. If a landowner sells a portion of their credits, they're only obligated to defer the associated harvest activities for one year.

**34. How long will I wait before my offer is matched with a buyer bid?**

Landowner offers are matched directly with buyer bids weekly on Thursdays. The time between when you submit an offer and when it's matched will be dependent on price and the order in which your information is submitted.



Landowners improve their chances of being matched with buyer bids by selling credits competitively. NCX provides guidance based on most recent, 3-month, and 6-month averages that reflect buyer bid prices.

**35. What is the offer submission deadline?**

Seller offers and buyer bids are matched weekly on Thursdays. Interested participants have until 10:00 AM PDT on Thursday to submit an offer for the upcoming matching event. Offers submitted after 10:00 AM PDT will be matched the following Thursday.

In the case that the matching event is on a holiday, that week’s matching event will be canceled. NCX holidays include:

Observance	Date
Martin Luther King Jr. Day	January 17, 2022
Presidents Day	February 21, 2022
Arbor Day	April 29, 2022
Memorial Day	May 30, 2022
Independence Day	July 4, 2022
Labor Day	September 5, 2022
Veterans Day	November 11, 2022
Thanksgiving	November 24-25, 2022
Winter Holidays*	December 23 - 30, 2022

*\*New Year's Day falls on the Sunday following Winter Holidays.*

**36. Can I still conduct management activities and/or harvest while waiting to be matched with a buyer?**

Yes, however, if you have harvest activity planned you should reduce the volume of credits sold under the assumption your offer will be matched. Once your offer is matched with a buyer it becomes binding - you will not be able to modify it at that point.

Accounting for harvest activity prior to submitting an offer ensures you’re able to manage your property according to how you see fit, deliver on all of the credits sold, and receive

full payment amount. See your Eligibility Report for guidance on how to convert HDCs to greens tons or board feet.

**37. How will I know my order in line?**

The selling process includes 6 steps. The confirmation page, Step 6, will display the number of offers submitted before the submission you entered. Your NCX account will dynamically update as seller orders are matched with buyer bids so you'll be able to see your place in line any time you log in to your account.

**38. How will I know if I got matched?**

NCX will notify matched participants weekly on Fridays. If you're not matched with a buyer, your offer will automatically carry over to the following week and you will retain your order in line unless you choose to modify your submission.

It's imperative the email address you provided when creating your NCX account is one you have access to as updates are sent via email. Alternatively, you can log in to your account [here](#) to check the current status.

**39. What if my offer is matched before the Performance Period begins?**

NCX will match seller offers and buyer bids weekly for the upcoming Performance Period. If your offer is matched, you will be enrolled in the upcoming program cycle.

As an example: If your offer is matched on September 9, 2022, you'll be enrolled in the Fall 2022 cycle and the Performance Period will run from October 1, 2022 - September 30, 2023.

**40. If my offer is not matched does it automatically roll over to the next cycle?**

If you submitted an offer that does not get matched when the cycle transitions, you may submit a new offer at the same price and keep your order in line. Your order in line will be based on the original submission date. However, changing your offer price will affect its order in relation to other sellers' offers and will be based on the time of the change, not your original submission.

**41. What is the proportion of seller offers to buyer bids?**

It depends. NCX has a dedicated Business Development Team that continuously works with buyers to finalize contracts for the purchase of Harvest Deferral Credits sellers offer through their participation in the Natural Capital Exchange. Given the volume of credits buyers are interested in bidding for, multiple sellers will fulfill a single buyer bid.

#### **42. Will NCX automatically generate new Eligibility Reports after the cycle transitions?**

No. Interested participants must request a new Eligibility Report each cycle. Your account information will remain available and you'll be able to request an updated assessment by logging into the platform with your existing email and password.

### **Payment**

#### **43. Are there fees for participation in NCX?**

Sellers will not be charged any out-of-pocket fees. Measurement costs are borne by NCX.

#### **44. When will I receive payment if I participate in a cycle?**

If your offer is accepted by a buyer, following the close of the cycle, we'll coordinate a second assessment to evaluate the delivery of the credits sold and payments will be issued pending confirmation. That closing assessment is referred to as a Results Report which will be uploaded to your NCX account for review and approval. Once approved and payment information provided, NCX will release payment. We anticipate payments will be delivered within 90 days following the end of the Performance Period.

#### **45. How will revenue from the sale of Harvest Deferral Credits be taxed?**

NCX payments will be treated as ordinary income for tax purposes.

## **Section 3: Program Accounting**

### **Creditable Carbon**

#### **46. How are carbon credits created in this program?**

This program pays landowners to increase carbon stocks on their property by deferring BAU (or business-as-usual) harvest activity. This results in additional carbon sequestered across the landscape, in turn creating carbon removal credits, which in the NCX Seller Agreement are called "Harvest Deferral Credits."

Creditable carbon removals are calculated based on starting carbon stocks, the BAU likelihood of harvest for those stocks in their market context, and the ending stocks (or, how much harvesting actually happened).

Using a conversion factor that has to do with the "time preference" for carbon and how it acts in the atmosphere, we measure the impact of 1-year NCX credits in terms of the

standard “permanent tons” metric often employed by other programs.

**47. How are initial carbon stocks measured?**

NCX’s [Basemap](#) is the basis for initial estimates of carbon stocks. Basemap uses the USFS FIA dataset in combination with remotely sensed data to produce a high-resolution, up-to-date map of forest inventory for the continental US. These inventory data are used to assess the carbon stock on every acre, on every parcel, for every landowner.

Carbon stock values on participating properties are also measured with field measurements in an unbiased (model-assisted) plot design at the conclusion of the one-year term.

**48. I just clearcut a portion of my property last month. How will this affect my eligible carbon assessment?**

The landowner platform will display the most recent imagery date for Basemap inventory estimates for the cycle. If you have conducted a harvest since that date, you should account for this by reducing the number of HDCs you offer to sell. Please refer to your Eligibility Report for conversion tables.

**49. How does NCX assess the harvest likelihood and BAU on my property?**

To generate your business-as-usual (BAU) amount of harvesting activity, NCX uses a predictive algorithm. Inputs to the algorithm include the sizes and species of trees on your property (as estimated by NCX’s Basemap), your location and proximity to markets, terrain and operability, and the size of your parcels, among other factors. This algorithm is run over the subset of your acreage that is eligible for this NCX cycle.

Whether or not you harvest timber from the property every year, you can think of the BAU as a reflection of the “risk” that harvesting would occur under typical circumstances.

**50. How can I know that NCX correctly assesses my BAU?**

Both your Eligibility Report and the NCX Seller Agreement contain information intended to help you understand your BAU in relation to your property. Your NCX BAU will not always precisely align with your management plan for the property. If you have concerns about the BAU assessment NCX has provided, feel free to reach out to us at [landowners@ncx.com](mailto:landowners@ncx.com).

**51. NCX has given me information for my property as a whole. Can you provide that information broken down into stands, parcels, or some other granular unit?**

Your property is assessed at the summary level (i.e. treating the property as a whole), which is why your BAU is also provided at the summary level. NCX does not currently provide this information for sub-sections of your property, such as parcels or stands, however, that granularity is something we may be able to support in the future.

**52. How do I translate merchantable tons of timber to Harvest Deferral Credits?**

Since all trees store carbon, Harvest Deferral Credits are simply units that express the carbon content of the trees instead of, for example, their weight (like green tons). NCX estimates that 1 Harvest Deferral Credit represents the standing carbon that is stored in approximately 11 merchantable green tons of hardwood or 14 merchantable green tons of softwood. Additional conversions are available in the Eligibility Report.

**53. Does NCX give credit for new tree plantings or other measures of forest health besides carbon?**

Not at this time. Currently, NCX participants are only credited for retaining the forest carbon on their landscape that they committed to under the NCX Seller Agreement, however, we are actively exploring how we can support other forms of natural capital.

**54. How does this methodology account for natural disturbances that may occur (e.g. tornados, hurricanes)?**

Landowners only receive credit for standing forest carbon at the end of the term. If natural disturbances reduce standing carbon amounts, the landowners will receive a reduced payment or no payment. However, punitive provisions (such as prohibitions on future participation) are waived.

**Certification**

**55. Will this be third-party verified?**

Yes, in two ways. First, ground measurements and their protocol will be verified by an independent third party. Second, the process used to produce estimates of carbon stocking will also be independently verified.

**56. Will this methodology be certified by a standards body?**

NCX was working with Verra (Verified Carbon Standard - VCS) on getting our credits third-party certified, however this process has been paused (you can read our official statement [here](#) regarding this decision) and we are now pursuing other avenues for certification of our credits through engaging with NGOs, scientific advisors, and the

academic community. Transparency is of utmost importance to us and we intend to share updates as we continue pursuing certification.

**57. What are the major differences between this and the California ARB (CARB) forest carbon methodology?**

The most significant differences pertain to the length of the contract and the transaction costs of participation.

- CARB methodology requires 100-year contractual terms; this methodology operates with a 1-year term.
- CARB methodology requires participants to assess their carbon stock and baseline at significant cost and to submit the measurements for subjective review; this methodology produces objective measurements using remote sensing at no cost to participants.

## **Section 4: Methodology**

### **Additionality**

**58. How does this methodology ensure that carbon removals and credits are “additional”?**

“Additional carbon”, also called “creditable carbon”, is carbon stored in excess of the BAU (business-as-usual) case.

Additionality depends on an accurate assessment of BAU. Each year, NCX produces estimates of carbon stocking and the BAU harvesting regime for each landowner based on forest composition and market dynamics. That information influences the number of Harvest Deferral Credits sellers can offer to defer those activities for one year. Sellers are paid for the carbon that they deliver above their BAU after the Performance Period closes and a second assessment is conducted.

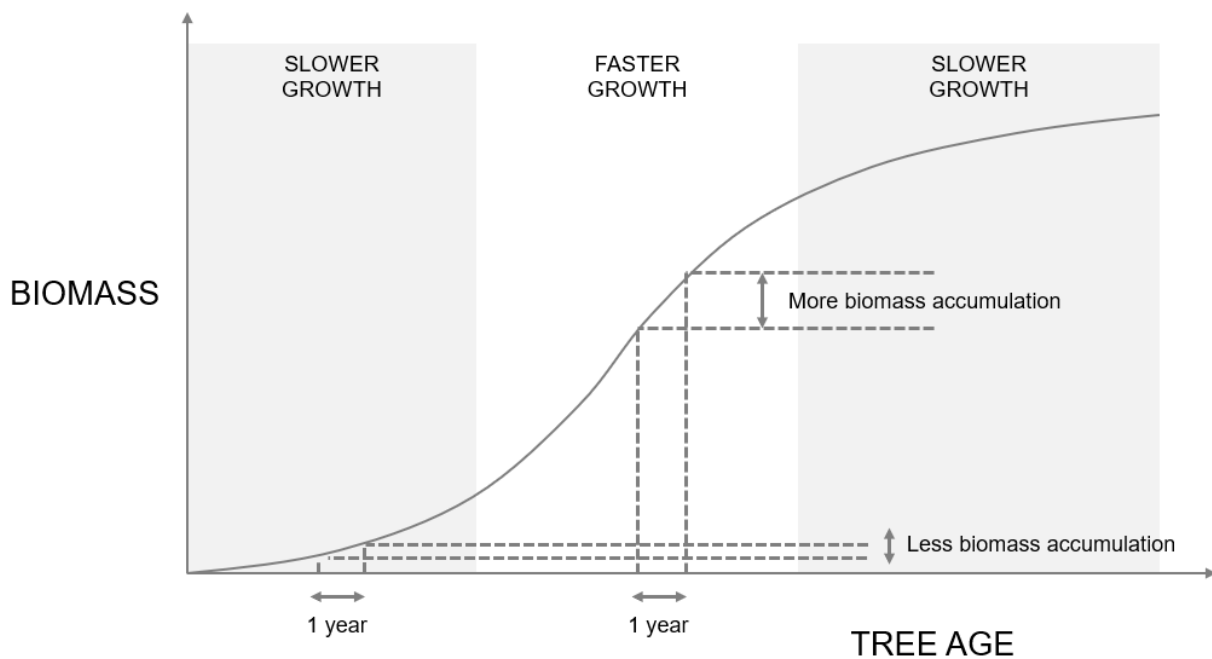
In a more general sense, increasing the average age of forests across the landscape increases the overall amount of carbon stored in forests. Annual reduction in harvest volume, which is what NCX achieves, results in an increase in the average forest age. By increasing the average age of forests across the landscape, the amount of carbon stored in forest biomass increases correspondingly.

**59. If you are paying to extend the lifespan (i.e. rotation age) of stands that would have been replanted after being harvested anyway, how does that create additional carbon on the landscape?**

Payments through this market extend the amount of time trees spend in a high-growth stage of their biological lifecycle.

The accumulation of biomass, and therefore carbon, in trees, follows an s-shaped or sigmoidal curve. Carbon accumulation is relatively slow in the first few years of tree growth, accelerates to a higher rate in the middle years, and then slows down again in later years. When considering extractive timber value, most optimal harvest ages fall in these middle years, during the most productive period of tree growth. Therefore, one year of extension at this point in the tree's life cycle accounts for both more carbon held on the acre and more carbon accumulated in growth over the year term. By extending rotations, and thus the average forest age, more carbon is held on the landscape in aggregate.

You're invited to review [NCX's Carbon Guide](#) for more information.



**60. Some portion of harvested tree volume is turned into products (e.g. solid wood products for construction) that store carbon for a long time anyway. Does that count as creditable carbon under this methodology?**

No. This methodology focuses on incentivizing landowners to store additional carbon in living forest biomass. Wood products store carbon for periods of time, but at this time it is beyond the scope of this methodology to measure and account for that carbon storage.

## Permanence

### **61. What is the standard of “permanence” for carbon sequestration and how does this methodology meet it?**

Permanence is an important part of most carbon sequestration projects. Fundamentally, it is a way of making sure that carbon removals fully account for the damages associated with greenhouse gas emissions. “Permanence” in carbon programs usually means a requirement that a unit of carbon removals will not be emitted again before some time horizon—often 100 years. As a result, the impact of carbon programs is often measured in terms of “permanent tons” of removal, or one ton of carbon removed for 100 years.

The real intention of the permanence requirement is, however, to generate an adequate quantity of climate impact—not simply to meet a set time horizon. Importantly, the same climate impact of one “permanent ton” can be fully achieved through the removal and storage of a larger amount of carbon over a shorter duration. We can therefore establish equivalence of impact between 1-year removals of CO<sub>2</sub> in NCX, and the standard metric of 100-year “permanent” tons.

This formulation of permanence has been formally approved by mainstream certifiers along with our methodology concept, and will be elaborated with input from climate scientists, economists, NGOs, and other stakeholders as the NCX methodology is fully certified.

## Leakage

### **62. What is “leakage” in carbon markets and how does this methodology account for it?**

There are two primary types of leakage that must be addressed in forest carbon methodologies—internal “activity-shifting” leakage and landscape-level “market leakage”.

Activity-shifting leakage is internal to an individual landowner’s property. If payments were made to a landowner to defer harvest on a particular stand, and they instead shifted their harvest activity to a similar stand that they had not enrolled, that would constitute leakage because the impact would have been nullified by the “leaked” harvest activity. To prevent this effect, a landowner must enroll all of their legally owned acreage in the program annually (see FAQ on this topic above, and the NCX Seller Agreement for more detail). Landowners receive payment for total deferral of harvest regardless of where on their ownership it occurs.



The second type of leakage occurs outside of participants' property, called market leakage. Market leakage happens when the reduction of timber harvest on one property increases the pressure for timber harvests elsewhere. This increased harvest elsewhere may partially or fully cancel out the program's intended impact.

Market leakage cannot be fully eliminated, however, it can be minimized by making participation in carbon programs as accessible as possible. When only one subset of landowners can receive payments to reduce timber harvests, harvests that would have taken place on their properties may readily "leak" onto adjacent properties that are excluded from the program. To address this type of leakage, NCX's methodology has dramatically expanded the range of landowners that can participate in the market.

Additionally, NCX quantifies and deducts the leakage effect from carbon projects' declared impact. We quantify market leakage by combining well-established forest economics with empirical data on supply and demand in timber markets. Using these factors, we calculate the changes in timber markets resulting from project activities and derive the "leaked" quantity of harvests. This quantity is then deducted from a project's total carbon removals.

### **63. Will this market increase the cost of wood to the mill?**

In the short run, this market may increase the cost of fiber for mills. Carbon buyers represent another source of demand for the same supply of timber volume. This increased competition for the same supply may cause prices to rise.

However, in the long term, by increasing the age of forests on the landscape, this market may increase the supply of timber such that the price of fiber actually goes down. The long-term economics will depend on many factors, including the price elasticities of supply and demand.