

RESPONSE TO PUBLIC COMMENTS



An *Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal US Forestlands* was developed by L&C Carbon LLC and CE2 Carbon Capital, LLC based on an existing American Carbon Registry (ACR) approved IFM methodology, and submitted to ACR for approval through the public consultation and scientific peer review process.

The methodology was submitted to ACR on March 8, 2011. ACR conducted its standard internal methodology screening and provided this to the methodology authors on March 23. The authors submitted a revised methodology and supporting documentation on April 5.

The methodology was posted for public comment from April 18 – May 13, 2011. Public comments and responses by the authors are given below.

Following public consultation, the methodology will be submitted to three anonymous peer reviewers, experts in the field of forest carbon methodologies and improved forest management in the United States. Peer review comments and responses are summarized in a separate document.

EXCLUSION OF FEDERAL LANDS (IN A2 APPLICABILITY CONDITIONS AND B1 PROJECT ELIGIBILITY) 1
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IDENTIFICATION OF BASELINE (C1) 3

Exclusion of Federal lands (in A2 Applicability Conditions and B1 Project Eligibility)

	Comment	Commenter	Response
1	Why the exclusion of forest lands under the control of a Governmental entity? I would have thought inclusive would be superior to exclusive.	U.S. Army Corps of Engineers	We believe our methodology could be applied to federal lands; however, federal lands are not the focus of our project development work at this time. Furthermore, federal lands generally are guided by comprehensive plans that are developed through complex and lengthy processes. The result is a set of approved management actions covering decadal timeframes. For federal lands to

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			participate in a carbon program, revisions to their planning documents would likely be required and the associated timeframes would, in most cases, exceed our project development schedule.

Forest certification requirement (in A2 Applicability Conditions)

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1	We support the option of allowing family forestland owners to select a forest certification system (ATFS, FSC or SFI) that meets their individual values and objections. Again, this approach will attract the widest possible participation in the developing carbon markets.	Oregon Small Woodlands Association / Family Forests of Oregon [see full OWSA/FFO comments in attached letter]	Agree. Our intent is to recognize all creditable and internationally recognized certification systems. Each of these certification systems is designed to serve different landowners and recognize their varied approaches to sustainable forest management. We agree that our approach will ensure interest by a wide range of participants.
2	It is estimated only about 350,000 families have reached out to a forester or other natural resource professional for forest management advice. Of those, less than 100,000 families are managing to a rigorous and verifiable sustainable manner. These families' forests are certified by the American Tree Farm System a program of AFF, Forest Stewardship Council or Sustainable Forestry Initiative.	American Forest Foundation [see full AFF comments in attached letter]	Agree. Third-party certification of sustainable management is a valuable tool for forestland owners. By requiring private land owners to maintain third-party certification as a participation requirement, we believe more forestlands will participate in certification programs over time.
3	We also support the option of allowing family forestland owners to select a forest certification system (ATFS, FSC or SFI) that meets their individual values and objections. Again, this approach will attract the widest possible participation in the developing carbon markets.	Washington Farm Forestry Association and the Family Forest Foundation	Agree. Please see response to comment 1 (forest certification requirement).

	Comment	Commenter	Response
		[see full WFFA/FFF comments in attached letter]	

Project temporal boundary (B3)

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1	I have a number of industrial timberland owners that have or are considering whether to incorporate carbon credits into their production decisions. For the most part, most of these clients have been reluctant to pursue carbon credits with the CAR protocol. The 100 year commitment is a hurdle that they cannot overcome on anything other than an already agreed to conservation easement. These landowners may find the proposed methodology much more palatable, given the shorter commitment period.	Mason, Bruce & Girard [see full MB&G comments in attached e-mail]	Agree. A key reason we are proposing a new ACR IFM methodology is to broaden forestland owner interest in IFM carbon projects. We believe that the ACR program strikes the proper balance between high quality standards and responding to a range of forestland owner values and objectives, including contract lengths that are considered reasonable by many private forestland owners.

Identification of Baseline (C1)

	Comment	Commenter	Response
1	Family forestland owners manage their lands with a wide range of goals and objects. The management of these lands is very different than the management found on other sectors of the U.S. forest ownership, such as private industrial and public agencies. This distinction in management approaches has limited family forest landowners from participating in carbon markets. The costs of participation are also a challenge, which is why we were happy to learn of ACR's approach	Oregon Small Woodlands Association / Family Forests of Oregon [see full OWSA/FFO comments in attached letter]	Agree with all of these comments. We developed a proposed ACR IFM methodology to address these and other issues that preclude family and other non-industrial forestland owners from participating in the developing carbon markets.

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	<p>and efforts to create aggregation models that we hope will lower participation costs for family forestland owners.</p> <p>We strongly support L&C Carbon’s effort to set reasonable carbon baseline projections for nonindustrial private forestland (NIPF) ownerships through their proposed IFM methodology.</p> <p>Based on our collective knowledge and experience, we believe that the use of a Net Present Value rate of 5% is a fair and rational proxy for baseline forecasting on NIPF ownerships. Family landowners typically do not manage and harvest at the same intensity that private industrial landowners (NPV 6%), yet they typically manage more intensively than public agencies (NPV 4%). Using NPV as a proxy for predicting future harvest rates and using this approximation to set baselines will likely create more opportunity for family forestland owners to participate in emerging carbon markets.</p>		
2	<p>After briefly reviewing the proposed methodology my reaction is positive as using a NPV approach better levels the playing field for forest managers. The regional approach establishes a baseline that all are measured against – rather than against your own history. In other words, under some systems good operators are penalized for their historical good carbon management and bad operators can benefit by making relatively minor changes. I think that this methodology will be fair to forest managers and effective at sequestering carbon via IFM.</p>	Aitkin County (Minnesota) Land Department	<p>Agree. We believe that rewarding landowners for managing their lands well in the past should not disqualify them from participating in a carbon program, as long as their future management increases carbon stocks over time.</p> <p>Regarding NPV comments – please see response to comment 3 below.</p>
3	<p>Unfortunately, entry into forest carbon markets for the average forest owner is nearly impossible due to high up-front costs and verification costs. In addition, existing ACR IFM carbon methodology precludes the vast majority of</p>	American Forest Foundation	<p>Our proposed methodology is not designed to serve all family forestland owners in the U.S. Rather, we are targeting those family and other forestland owners that use timber harvest as a management tool to achieve their</p>

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	<p>family forest landowners from meeting two of the three methodologies [commenter is referring to applicability conditions of an existing ACR IFM methodology]: 1) demonstrate they have a commercial timber harvesting program, 2) demonstrate they are managing using net present value rates of 6%.</p> <p>Most of the family forest lands that are managed (a small portion of the total family forest ownership) are managed for a range of values. In most instances, timber production is a low priority compared to other values like wildlife habitat or recreation. Studies by <i>Birch et al</i> show that most family-owned forests are only harvested once in the lifetime of the owner. ACR methodologies [i.e. applicability conditions] 1 and 2 immediately remove a potentially significant pool of forest owners who could play a major role in climate change mitigation.</p> <p>It is with these points in mind that we offer our support for the L&C Carbon proposed methodology. Adopting this methodology will better enable the nation's family forest owners to participate in carbon market opportunities. We especially like L&C's proposal to reduce the NPV requirement and include certified forest owners.</p>	<p>[see full AFF comments in attached letter]</p>	<p>values and objectives.</p> <p>Predicting harvest decisions of NIPF and other non-industrial forestlands is challenging. Research and scientific literature document that these forestland owners, as a group, do harvest at a predictable rate over time. However, these owners do not always have records of historical commercial timber production. This is due to a variety of reasons, such as length of ownership, age of forest stands, and poor record keeping.</p> <p>Amacher et al. (2003) and Beach et al. (2005) both provide excellent reviews of the literature on NIPF harvesting decisions. These studies typically present the harvesting decision as a function of a range of variables including timber price, interest rate, reforestation cost, presence of cost-share programs, household income, tract size, education and owner age (among other things). Values in the literature also bear this out. Newman and Wear (1993) show that private industrial and NIPF owners both demonstrate behavior consistent with profit maximization, yet the determinants of profit differ with NIPF owners because they derive significant non-market benefits associated with standing timber. These non-market benefits (called "amenity values") were further described in Pattanayak et al. (2002) who found joint production of timber and non-timber values best describe NIPF harvest decisions. And most importantly Gan et al. (2001) showed that the impact of a reduced discount rate actually had the <u>same</u> impact as the addition of an amenity value when predicting harvest decisions for NIPF owners.</p> <p>While there is general agreement in the literature regarding NIPF management decisions being some function of profit</p>

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			<p>(utility maximization), there does not exist a set of studies determining what those values are. We believe that our NPV values are reasonable, conservative, and scientifically valid based on studies in the published literature and our examination of FIA data.</p> <p>Thus, we believe that NPV is a valid proxy to predict baseline harvest decisions for U.S. forest ownership classes contained in our proposed methodology.</p>
4	<p>I have a number of other clients that are smaller family-owned timberland owners, as well as some clients that are municipalities and state forest trust beneficiaries. I believe that these clients may find the proposed methodology very attractive. These timberland owners are typically managing less intensively than their industrial counterparts. They already carry larger inventories, and have longer rotations. Ironically, this makes it even more costly for them to enter into an Improved Forest Management program under the other methodologies – the baseline becomes their already extended rotations. They are reluctant to pass a heavily encumbered property onto the next generation, especially considering the probability of estate tax issues.</p> <p>When the private landowner passes on, the heirs are faced with economic pressure to cut the timber sooner than they might otherwise. And when municipal leaders change, and/or are strapped for operating revenue, there is again a pressure to cut timber sooner than they might otherwise. Carbon credits can help in either case to provide some consistent annual income and thereby reduce the pressure drop back to the shorter rotations practiced by industrial landowners.</p>	<p>Mason, Bruce & Girard</p> <p>[see full MB&G comments in attached e-mail]</p>	<p>Our proposed methodology may not be for every forestland owner; however, our intent in proposing a new methodology is to expand the opportunity for a greater number of non-industrial forestland owners to participate in the developing carbon markets.</p> <p>The ability to generate annual revenue for increasing carbon stocks may obviate the need for forestland owners to harvest at rates that would reduce carbon stocks over time to address financial needs.</p>

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5	<p>Family forestland owners manage their lands with a wide range of goals and objects. The management of these lands is very different than the management found on other sectors of the U.S. forest ownership, such as private industrial and public agencies.</p> <p>This distinction in management approaches has limited family forest landowners from participating in carbon markets. The costs of participation are also a challenge, which is why we were happy to learn of ACR's approach and efforts to create aggregation models that we hope will lower participation costs for family forestland owners.</p> <p>We strongly support L&C Carbon's effort to set reasonable carbon baseline projections for non-industrial private forestland (NIPF) ownerships through their proposed IFM methodology.</p> <p>Based on our collective knowledge and experience, we believe that the use of a Net Present Value rate of 5% is a fair and rational proxy for baseline forecasting on NIPF ownerships. Family landowners typically do not manage and harvest at the same intensity that private industrial landowners (NPV 6%), yet they typically manage more intensively than public agencies (NPV 4%). Using NPV as a proxy for predicting future harvest rates and using this approximation to set baselines will likely create more opportunity for family forestland owners to participate in emerging carbon markets.</p>	<p>Washington Farm Forestry Association and the Family Forest Foundation</p> <p>[see full WFFA/FFF comments in attached letter]</p>	<p>Agree. See our response to these comments above.</p>