FiniteCarbon
Connecting Forestry and Carbon Finance

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

November 29, 2010

The Honorable Mary Nichols
Chairman
California Environmental Protection Agency
Air Resources Board
1001 I Street
Sacramento, CA 95812

RE: Cap-and-trade Proposed Regulations

Dear Chairman Nichols and Members of the Board:

Finite Carbon is a forest carbon offset project developer with extensive experience within California and throughout the United States. Finite Carbon staff have decades of combined carbon and forestry experience with three foresters including a California Registered Professional Forester, two certified CAR verifiers including the lead verifier on three registered CAR projects, a broker with experience transacting CAR forest carbon, a member of the CAR forest carbon working group, two members of the Forest Carbon Offset Standards Committee, an author of an American Carbon Registry forest carbon methodology, and an adjunct professor specializing in forest carbon and ecosystem markets.

We currently have eleven forest carbon projects listed on the Climate Action Reserve making us the leading forest carbon developer under CAR. We expect that our hands-on experience implementing these projects throughout the country over the past year will provide critical insights for ARB staff as you proceed with amending and adopting the final Regulation.

We thank you for your consideration and would be happy to answer any questions you may have.

Sincerely,

Scott Nissenbaum
President
Finite Carbon Corporation
484-586-3094
snissenbaum@finitecarbon.com

FiniteCarbon
Connecting Forestry and Carbon Finance

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

§ 95802. Definitions.

Page A-17 (75) "forest owner." The definition of forest owner states that both the holder of timber rights and the landowner are accountable for reversals. Since timber rights are a wholly separate property right from the land, the landowner should not be held accountable for reversal associated with timber rights. A landowner does not have any management control over timber rights, nor does he share in any income associated with the harvest of timber or the sequestration of carbon. **We recommend the definition be amended so that a perpetuity timber rights owner with 100 percent of managerial control and ownership of the timber assets can be defined as a "forest owner."**

Page A-21 (99) "intentional reversal." Including reversals caused by negligence is very broad while the consequences are severe. For instance, if a landowner maintains a highly stocked stand in order to maximize carbon and this increases fire risk which causes a reversal, is this negligence? Or if a landowner chooses not to preemptively thin a stand which is vulnerable to disease in order to maximize carbon and the entire stand is affected by disease causing a reversal, is this negligence? **We recommend the definition be amended to reflect the current Climate Action Reserve Forest Carbon Protocol language that an intentional reversal is a result of "intentional or grossly negligent acts of the forest owner."**

§ 95972. Requirements for Compliance Offset Protocols.

Page A-112 (b) Crediting Periods. A 30-year crediting period for sequestration projects is too short given the requirement for a 100-year maintenance period following the last credit which requires regular inventories, project reporting, and site verifications. The uncertainty of the length of a cap-and-trade program and unknown future costs are substantial deterrents from implementing a project. Adding an additional uncertainty of whether a forest owner will benefit for more than 30 years for a project which will have 130 years of associated costs is another disincentive. **We recommend that ARB adopt a crediting period for forest carbon projects that is equivalent to the life of the forest carbon project.**

§ 95973. Requirements for Offset Projects Using ARB Compliance Offset Protocols.

Page A-113 (a)(2)(B) Offset Project commencement date. The requirement for an ARB Compliance Offset Project to begin after December 21, 2006 is concerning because it limits early action projects to a single 10-year crediting period. As currently written, after 2014 any project which meets all the criteria to be an early action project will not be able to convert to the ARB Compliance Offset Protocol. This is especially problematic for reforestation projects which do not produce significant offsets until after the first decade of

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

the project. Any sequestration project is unlikely to be economical if it receives only 9 or 10 years of ARB-compliant early action offsets and is then unable convert to the ARB Protocol while still having at least another 110 years of inventory, verification, and monitoring costs ahead of it and no revenue to offset these costs against. Of the 46 forest carbon projects listed on the Climate Action Reserve, 18 have pre-2005 start dates. **We recommend that any project which qualifies as early action per section 95990 and also meets the ARB Compliance Offset Protocol U.S. Forest Projects can convert to the Compliance Offset Protocol on or before December 31, 2014.**

§ 95976. Monitoring, Reporting, and Record Retention Requirements of Offset Projects.

Page A-120 (d)(6) Offset Project Data Report due date. The rigid due date for the Offset Project Data Report is impractical for sequestration projects. A report cannot be completed until after the end of the calendar year; however, it is possible that in some areas of the country where sequestration projects will be implemented, winter weather may impede the ability to collect the necessary data between the end of the calendar year and April 1 of the following year. **We request that the date be extended to July 1 of the following year or allow sequestration projects to have an automatic extension to July 1 of the following year.**

Page A-120 (d)(7) Offset Project Data Report due date penalty. The penalty for a late Project Data Report is too harsh given the potential for extenuating circumstances beyond the Project Operator's control. **We recommend that the penalty be pro-rated using a sliding scale depending on the lateness of the report and to clarify that a delay resulting from ARB or an associated registry will not result in a penalty.**

§ 95977. Verification of GHG Emission Reductions or GHG Removal Enhancements from Offset Projects.

Page A-125 (c) Schedule for Verification of Offset Projects. There is no distinction made between a site verification and a desk verification in this section. The ability to issue offsets from a desk verification between the 6-year interval site visit requirement is critical to the viability of small-scale forest carbon offset projects. At a minimum, a site verification costs upwards of $15,000 while a desk verification can be as little as $2,500. Market swings and the time value of money both add pressure to smaller projects that cannot afford to do annual site verifications but need a steady issuance of credits. **We recommend that ARB maintain the requirement for site verification every 6-years but allow for offset to be issued to projects in between site verifications based upon a desk verification.**

FiniteCarbon
Connecting Forestry and Carbon Finance

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

Page A-129 (e)(2)(C)(iv) Site Visits for Offset Projects. This section requires two site verifications to be performed in the first year of a project – once at initiation and another after the first year of operations – which will double the cost of verification in the first year. This further increases the minimum size requirement for a project to be financially feasible. An acre of forestland in Maine with a very conservative annual harvest may have one-half of an offset per acre registered annually. This would mean it would take the full production of 6,000 acres of land at $10 a ton just to cover the first year's verification costs. **We recommend that there only be one required site-verification every 6 years with only a single verification required in the first year.**

Page A-130 (e)(2)(C)(iv)(b)(i) Site Visits for Offset Projects. This section requires that all project boundaries be checked during each verification. We request clarification to define what the verification requirements to check the project boundaries in a forest carbon project will entail as this may be excessively onerous if a physical check of all boundaries is required.

Page A-130 (e)(2)(C)(iv)(b)(iv) Site Visits for Offset Projects. This section requires the verifier to make direct observations of equipment or data sources and equipment supplying data for sources in the sampling plan. **We request clarification as to how this would apply to forest carbon projects.**

Page A-133 (e)(2)(C)(xi) Site Visits for Offset Projects. It is not customary to transfer copies of records or documents from project owners to verifiers for periods longer than the verification itself. Many landowners see this information as highly confidential and outside knowledge could be detrimental to their business. There are no minimum data security requirements for verifiers nor is there any reason a verifier could not be bought by a rival timber company for access to the sensitive data, especially when it is public knowledge a verifier holds it. This is very significant when landholdings may exceed billions of dollars in value. Holding copies of documents and records reviewed in the verifiers' files is also redundant since the project owner needs to keep them for the project life (which could exceed 100 years) under penalty of California law. **We recommend that a verifier only be required to keep a record of what they have reviewed during the verification including version, page, volume, data base id, etc.**

Page A-133 (e)(2)(C)(xii)(c) Site Visits for Offset Projects. The requirement for use of professional judgment in sample size is concerning for project owners. The requirement for use of professional judgment will result in a "race to the bottom" by verifiers since the sample size dramatically impacts the price of verifications. The fewer samples a verifier thinks he may get away with, the lower the sample size he may recommend. **Since the**

FiniteCarbon
Connecting Forestry and Carbon Finance

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

landowner relies on this professional judgment, not being an expert himself, it is impossible for him to know where the line is that will result in a higher risk of errors. Since ARB suggests that landowners bear the ultimate liability for errors, we suggest that ARB require a minimum sample size of 10%.

Page A-135 (e)(2)(C)(xii)(d) Site Visits for Offset Projects. This section requires verifiers to run parallel calculations to determine the accuracy of the project's calculations. There are many different approved software models for forest carbon projects, some of which cost more than $20,000. This alone would significantly increase the cost of verification if a verifier has to purchase 3 or 4 different models and only performs 5-10 verifications a year. In addition, the hourly cost to have a verifier reproduce the calculation will result in unworkable verification costs. **We recommend that verifiers be required to check the equations used within the project's model for accuracy as they are currently required to do under the Climate Action Reserve verification requirements.**

Page A-136 (e)(2)(C)(xiv) Site Visits for Offset Projects. This section requires verifiers to re-process project data and develop their own report to compare. This is excessive and would result in unworkable verification costs.

Page A-141 (e)(2)(C)(xix) Site Visits for Offset Projects. This section allows the Offset Project Operator of Authorized Project Designee 10 days to correct a material misstatement or nonconformance found by the offset verification team. **We believe 10 days is too short and recommend it be increased to 30 days.**

§ 95979. Conflict of Interest Requirements for Verification Bodies for Verification of Offset Project Data Reports.

Page A-147 (b)(3) Incentives for Verification Contracts. **We request clarification of what constitutes an incentive. Because of the burdensome costs of verification, it makes financial sense to contract for batch verifications. Because what constitutes an incentive is not defined, we cannot tell if receiving a discount for packaging together verifications will put projects at risk.**

Page A-147 (b)(4). Forest carbon project development is a very small field with very few qualified individuals. The number of verifiers a developer who retains experienced talent is significantly reduced under these criteria and the hiring pool for new talent is also significantly reduced. **We recommend that ARB allow this conflict to be ameliorated by insulating potential conflicts of interest from interacting on the verification of a project.**

FiniteCarbon
Connecting Forestry and Carbon Finance

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

For example, a former employee of an Offset Project Operator could not be designated as lead verifier on his former employer's project.

§ 95983. Offset Reversals.

Page A-159 (b)(1)(B) Verification after Unintentional Reversal. The requirement to perform a site verification within one year after an unintentional reversal will be a significant financial obstacle for a small landowner. **We recommend that ARB allow a desk verification to meet this requirement.**

Page A-159 (e) Disposition of Forest Sequestration Projects After an Intentional Reversal. The requirement that offset projects be terminated if subjected to an intentional reversal is unnecessary and conflicts with provisions stated in the ARB Compliance Offset Protocol U.S. Forest Projects. Allowing landowners to have flexibility over their land use while part of a carbon program is critical to encouraging sequestration projects. Under this provision, if a landowner has been part of a carbon program for 99 years and has sequestered 10 million tons of CO2, if he reverses just one metric ton in the 100th year of the project, he will be required to buy 10 million tons back from the market at the then-current market price. Since every ARB approved offset and allowance qualify as one metric ton of CO2, if the landowner reverses a ton of CO2 then he should be able to replace that ton of CO2 with any ARB-compliant allowance or offset to make the project whole. It is in the best interest of ARB and all cap-and-trade participants to keep projects active and not introduce potential shocks to the system where a landowner is unnecessarily forced to buy replacement offsets when it is maintaining sequestered carbon on-site already. Landowners are agreeing to parameters which are unknown in the future. If a disease specific to a particular tree is approaching a property, it often makes sense to preemptively thin a stand of the affected species as a cautionary measure. This would result in an intentional reversal but would be done with the long-term health of the forest in mind. Land use flexibility is also necessary in the event of eminent domain and other unknowable situations where a landowner desires to stay in the program for the long-term but is forced to convert part of the property. The current language suggests that if a landowner owns a million acres and converts one acre that he must cancel the entire project. This runs counter to the goals of AB 32. **We recommend that ARB delete this language and reference the provisions outlined for Intentional Reversals in the Compliance Offset Protocol U.S. Forest Projects.**

§ 95985. Invalidation of Offset Credits.

Page A-160 (a) Offset Invalidation. Invalidating an offset after it has been verified and issued significantly increases the risk profile of offsets and reduces their value. The registration of a

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

carbon offset is an expensive and tedious process and is specifically designed to ensure the final registered offset represents a carbon reduction that is real, verifiable, additional, and permanent. Therefore, once an offset is issued it should be considered to be equivalent to an allowance without potential for invalidation at some future date. This unknowable liability will reduce the value of offsets as well as investment in offset projects. **We recommend that ARB eliminate the potential for invalidation and ensure integrity of the system through the threat of suspension of verifiers and Authorized Project Designees. If necessary, we also recommend that ARB protect against the potential of errors and omissions by requiring projects to submit offsets to a buffer pool similar to the forest buffer pool. The loss in value of offsets compared to allowances is likely to be ten to twenty-five percent while a buffer pool contribution of five percent (or one in twenty tons) is far more than should be necessary to address the pooled risk of errors and omissions.**

Page A-161 (d&e) Offset Replacement. The language requires that in the case a user or retiree is no longer in business that the Offset Project Operator or Authorized Project Designee must replace the offsets. Since there is significant latitude in what specific roles and responsibilities an Offset Project Operator can assign to an Authorized Project Designee and the requirement to repay offsets is a significant burden, it is important that a clearer distinction is made. **We recommend that ARB amend this language so that the party required to repay offsets is clarified to be the party that signs the attestations set out in sections 95975 and 95976.**

§ 95990. Recognition of Offset Credits for Early Action.

Page A-171 (b)(1) Compliance Vintages. The language limits early-action compliance vintages to 2005-2014. The justification for the earliest vintage to be 2005 is that it is the first year Climate Action Reserve offset protocols were available for verification. This justification is arbitrary:

a. Although it was the first year the Climate Action Reserve protocols were available for verification, there is nothing in the ARB Regulation which limits early-action criteria to Climate Action Reserve projects only. Another registry which may be approved by ARB may have had its first protocol available for registration in 2002 or 2004 or any of a number of dates.
b. While 2005 is the year in which the protocols were first available to be used for verifications, the Climate Action Reserve Protocols allow for projects to receive verified CRTs as far back as 2001.

FiniteCarbon
Connecting Forestry and Carbon Finance

435 Devon Park Drive
700 Building
Wayne, PA 19087

p: 1-877-9-CARBON
f: 484-586-3081

www.finitecarbon.com

c. The early action criteria do not have a cut-off for early start dates. Therefore, a project may start in 2001 but its 2001-2004 vintages would not be considered compliance-grade while its 2005 vintages are. There is no scientific or policy reason that a 2004 vintage offset and a 2005 vintage offset from the same project do not constitute equal quality emissions reductions.

Forest carbon projects in particular are adversely impacted by this provision. Forest carbon offset projects tend to have a significant number of offset credits issued in the first year of the project with annual offsets issued to a much lesser extent. If a project were to have a start date of 2001, the majority of the project offsets would come at that time. If 2001 vintages are excluded as compliance offsets, they will lose significant value in the market and make it difficult if not impossible for the project to pay for the 100+ year compliance costs let alone the opportunity cost for foregone harvest. Of the 46 forest carbon projects listed on the Climate Action Reserve, 18 have pre-2005 start dates. **We recommend that ARB revise the early action vintage date to 2001 which corresponds to the signature of California Senate Bill No. 527 so that the justification is rooted in a California precedent and is not specific to an independent registry which may be one of many ultimately approved.**

Page A-173 (c)(2)(C) Offset Transaction Data. Registries do not currently maintain pricing data nor is it their role to do so. Beyond the fact that pricing data is extremely sensitive information, it is impossible for a registry to maintain per-offset data for highly structured over-the-counter contracts which may include revenue sharing, package pricing, or swaps. **We recommend that the requirement for registries to record pricing information is removed.**

General Comments:

- ARB Compliance Offset Protocol Availability – Finite Carbon is actively verifying forest carbon projects to the Climate Action Reserve Protocol 3.1 and 3.2. In order to effectively plan verifications and sales, we would like ARB to publish a draft timeline of when the Compliance Protocols will be available for use. We also feel that clarity on the exact mechanics of transferring a project from the Climate Action Reserve to ARB is critical to keep continuity in the carbon market. While it is clear that CAR projects are likely to qualify, the timing, cost, and details are not. In the meantime, many projects will choose to delay implementation until they can submit to ARB directly and eliminate risk as well as avoid having their offsets discounted in the market in the meantime.