CENTER *for* BIOLOGICAL DIVERSITY *Because life is good.*

September 10, 2010

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California Air Resources Board
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RE: Review of the environmental impacts and co-benefits of an AB 32 cap-and-trade program

Dear Mr. Seidler:

I submit these comments on behalf of the Center for Biological Diversity with regard to the California Air Resources Board's (ARB) development of a cap-and-trade program under California's Global Warming Solutions Act (AB 32), and the review of the environmental impacts and co-benefits of that proposal. The development of the proposal and the environmental review promise to be tremendously complex, and we appreciate the significant effort and consideration ARB is committing to addressing these complicated and important issues. Furthermore, we sincerely appreciate the effort that ARB has made to share their thinking as they initiated the rulemaking, and to widely solicit input into that process.

The Center for Biological Diversity has been actively engaged in working toward the successful and effective implementation of AB 32. To achieve these goals, ARB will need to pursue every opportunity to avoid and reduce negative impacts to the environment, and consider every option to maximize environmental benefits for California, in its consideration of a market-based compliance mechanism and the associated review of that mechanism's environmental impacts. Of equal importance, ARB will also need to ensure that both the public and relevant decision-makers understand the potential environmental consequences of both the current cap-and-trade proposal and a range of reasonable alternative strategies for achieving the benefits promised by AB 32. Our comments here are intended to highlight considerations critical to the environmental review and to assist ARB in making sure that its evaluation of the proposal complies with all applicable laws. We hope to help identify ways to move forward with the analysis, as well as to point out some of the potential fallibilities of portions of the rule.

I. Analysis of environmental impacts.

At the August 23 scoping meeting ARB indicated that the environmental impacts of the individual offset protocols would be analyzed under the California Environmental Quality Act (CEQA) as "compliance responses in [a] potential offset program." We agree with ARB's determination that the protocols (and the proposed alternatives within the protocols) must be reviewed in the Functional Equivalency Document (FED). The adoption of the offset protocols, like the adoption of an offset program, is a project that will have direct and indirect environmental impacts. CEQA applies to all "discretionary projects proposed to be carried out or approved by public agencies." Pub. Res. Code § 21080(a). A "project" is "the whole of an action" directly undertaken, supported, or authorized by a public agency "which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." Pub. Res. Code § 21065; CEQA Guidelines §

15378(a). In order to ensure that both the cap-and-trade program as a whole and the individual offset protocols meet the substantive requirements of AB 32 and CEQA, the impacts of both must be analyzed (and alternatives and mitigation measures proposed) for both under CEQA.

The CEQA review of the environmental impacts of the cap-and-trade program thus must evaluate and consider mitigation for (or alternatives to) the increased emissions (including pollutants other than greenhouse gases) from capped sectors resulting from the availability of offsets, as well as the foreseeable emissions that could result from potentially invalid offset credits and reversals under the various types of offset protocols. The review of the individual protocols, in turn, must consider the environmental impacts associated with the offset projects, as well as the potential for unintended consequences and perverse incentives, and leakage risk within the various sectors. As discussed in Section IV, below, this is particularly important with regard to the forest protocol, because of the complexity of the forest ecosystem, the large number of affected carbon pools (not all of which are counted by the protocol), and the high potential for the offset market to result in leakage in the forest sector and shifts in land management.

II. Maximization of environmental co-benefits

Health and Safety Code, Section 38570, states that, with regard to the implementation of AB 32, "*Prior to the inclusion of any market-based compliance mechanism in the regulations, to the extent feasible and in furtherance of achieving the statewide greenhouse gas emissions limit, the state board shall do all of the following… Maximize additional environmental and economic benefits for California, as appropriate.*" Obviously, the maximization of co-benefits could offer tremendous long-term rewards for California's environment, residents, communities, and economy. That said, the potential environmental consequences and benefits of various possible approaches are not necessarily identical and are not yet known. In order to make an informed choice among options, the public and ARB must have relevant information at their disposal.

In recent public workshops, ARB has indicated that the maximization of co-benefits would be addressed in the proposed rule, while the FED would separately review the environmental impacts of the proposed cap-and-trade program and various offset components under the requirements of the California Environmental Quality Act (CEQA). ARB's choice of strategies to implement AB 32's co-benefits requirement, however, will have environmental consequences, especially when considered in conjunction with other elements of the cap-and trade regulation. These consequences may not be universally beneficial, especially as compared to other feasible alternative approaches. Disclosure and analysis of the environmental consequences of particular policies, as well as identification of alternatives that could lessen them, is the core purpose of CEQA. It is therefore critical that the FED provide the same level of disclosure and analysis with regard to the environmental impacts associated with ARB's proposed approach to maximization of co-benefits as is required for other environmental impacts under CEQA. Furthermore, in order to ensure that the rule as a whole maximizes the co-benefits to California, ARB should undertake a comparison of alternatives that would allow a comparison among various policy options—including but not necessarily limited to cap-and-trade, regulated reductions, and carbon fees—and among the design options within the alternatives. The proper place to undertake this comparison is in the FED, not in the proposed rule alone.

In addition to comparing alternatives at the overall program level, ARB should carefully analyze alternative approaches within each offset protocol as well. As ARB stated in the July 29 update regarding the proposed offset component of the California cap-and-trade program, ARB will conduct analyses to

ensure that any proposed offsets meet all AB 32 requirements. This will necessarily include a comparison of alternatives among policy options within the offset methodologies—the offset protocols—to ensure that the environmental impacts associated with particular approaches are avoided or reduced to the extent feasible. This analysis also will facilitate ARB's ability to maximize co-benefits; insofar as AB 32 requires the maximization of co-benefits for California as a whole, it is critical that the full long-term value of environmental benefits to the state as a whole are appropriately estimated and projected. One of the great challenges with developing the proposed rule, the Initial Statement of Reasons (ISOR), and the environmental review simultaneously is ensuring that the review is used to inform policy decisions in a meaningful and transparent way. As the purpose of CEQA is to provide decision-makers and the public with meaningful information regarding the environmental impacts of policies before decisions are made, it is critical that the environmental review provide a meaningful analysis and comparison of policy options that explicates the selection of the proposed alternative and enables environmental considerations to influence the program design.

III. Independent revision and review of the offset protocols

The update regarding the proposed offset component of the California cap-and-trade program, published on July 29 by ARB, states:

> "*As part of its evaluation of [Climate Action Reserve] protocols, ARB staff is examining several aspects for potential adjustment, including:*
> • *Evaluating mechanisms for ensuring permanence in forestry projects to ensure that they are effective and enforceable by ARB.*
> • *Reviewing technical details to determine whether to incorporate* ***minor*** *adjustments, such as whether to require credits for the ODS protocol to be limited to destruction at facilities with Resource Conservation and Recovery Act permits.*
> • *Recommending* ***minor*** *modifications to each protocol to align with requirements of the cap-and-trade program, such as aligning project start eligibility dates and crediting periods, or alignment of terms and definitions.*" (Emphasis in bold, added.)

We hope that the emphasis on the "minor" nature of the changes under consideration does not indicate that ARB is backing away from making the changes necessary to ensure that each protocol meets the substantive requirements of AB 32. ARB has been aware for some time that protocols developed by the Climate Action Reserve (CAR) contain flaws that preclude their wholesale incorporation into AB 32's proposed compliance system. Indeed, at the June 23 workshop, ARB staff identified numerous substantive deficiencies in the CAR protocols, and in the forest protocol in particular, and discussed options to address those deficiencies. ARB indicated that it was considering options to address the deficiencies of the CAR forest protocol with regard to: additionality and baseline, unaccounted carbon pools, leakage, permanence, wood products, and even-age management. These are all critical issues that affect the additionality of forest project credits and the potential environmental impacts of the forest protocol.

We commend ARB staff for acknowledging the substantial deficiencies in the previously adopted CAR protocols and deciding to withdraw those protocols to allow for a review of their adequacy and environmental impacts. We strongly urge ARB to take a proactive approach to addressing the deficiencies of the offset protocols, and the forest protocol in particular. Only through an independent review of the protocols will ARB be able to develop the revisions necessary to ensure that the protocols are fully compliant with the goals and requirements of AB 32 and CEQA.

IV. Impacts specific to the forest protocols

While there are potential environmental impacts associated with any offset program, there are issues specific to the forest protocol that raise the risk of a number of environmental impacts. Many of these points were discussed in detail in our previous letter regarding the forest project protocol.[1] Because of these risks, the CEQA review must consider both the general environmental impacts of including forest offsets in the cap-and-trade program as a whole, as well as the particular impacts of alternative design options for the forest offset protocol.

A. Forest protocol does not ensure additionality

At the June 23 workshop, ARB proposed a definition of "additional" as: "*GHG emission reductions or removals that exceed any GHG reductions or removals otherwise required by law or regulations, or any GHG reductions or removals that would otherwise occur in a conservative business-as-usual scenario.*" To bring the forest protocol into compliance with that definition, ARB proposed revising the forest protocol to require that "existing agreements" such as sustained yield plans and Option A plans, Habitat Conservation Plans and Safe Harbor Agreements, "must be included in baseline modeling" for forest projects.

This proposal is correct, and should be adopted. In order to harvest timber in California, a landowner must demonstrate compliance with the maximum sustained production goals of the Forest Practice Act, and a large landowner must do so by preparing either a long-term management plan (either an Option A or a Sustained Yield Plan) that provides long-term sustained-yield projections. Thus, these plans constitute "legal constraints" under the California Forest Practice Rules. In addition, they contain a landowner's official representations to agency officials and the public regarding long-term plans for management of forests for sustained timber production. These plans thus provide a clear, presumptive indication of anticipated business-as-usual practices, and accordingly must be incorporated into forest project baselines to ensure the additionality of forest project credits.

Recent revisions to the forest protocol by the CAR directly contradict the proposed definition of "additional," and the general understanding of additionality.[2] On August 31, the CAR adopted revisions to the forest protocol that explicitly exempt forest projects from having to incorporate into the project baseline any forest growth that is projected to occur under these long-term management plans. Similarly, the revision fails to clearly require actions undertaken as mitigation measures under CEQA to be included in the project baseline.[3] These deficiencies must be addressed to ensure that the forest protocol meets the substantive requirements of AB 32.

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[1] See detailed comments in Center for Biological Diversity letter to ARB regarding the forest protocol, dated August 4, 2010.

[2] See detailed comments in Center for Biological Diversity letters to Climate Action Reserve regarding revisions to the forest protocol, dated April 30 and July 30, 2010.

[3] The June 23 presentation by ARB incorrectly identified CEQA mitigation measures as "voluntary." In fact, mitigation measures adopted pursuant to CEQA are legal requirements; in order to satisfy CEQA, mitigation measures "must be fully enforceable through permit conditions, agreements, or other legally binding instruments." Cal. Code Regs., tit. 14, § 15126.4(a)(2).

B. Forest offsets provide a much lower degree of permanence than other offsets

Forest offsets provide a much lower degree of permanence than other offset projects. While emissions reductions from many sources are essentially permanent, reductions under the forest protocol will last 100 years at best, and may suffer reversals well before that time. At the June 23 workshop, ARB proposed a definition of permanence that requires reductions to "endure for a period comparable to the atmospheric lifetime of anthropogenic CO_2 emissions." One hundred years is the low end of the range of estimates for the persistence of anthropogenic CO_2 in the atmosphere. Considering that under the CAR protocol, many forest offsets may be entirely reversed at the end of 100 years, it is possible that not all carbon offset projects will comply with the proposed definition. This lack of permanence relative to the atmospheric lifetime of GHG emissions will cause foreseeable environmental effects—namely, persistent long-term warming from emissions credited against forest project offsets—beyond the 100-year period. The environmental review thus must consider the effects of the lower assurance of permanence from forest offsets in comparison to reductions from other sources.

Furthermore, while conservation easements requiring the perpetual retention of a forest stand dramatically increase the assurance of permanence, the requirement for conservation easements was largely eliminated in the current version of the Forest Project Protocol. In considering which protocols to include in the cap-and-trade offset program, ARB must consider the relative value of carbon reductions by source with regard to their relative certainty of permanence, and must consider whether alternative permanence mechanisms, such as conservation easements, should be adopted to lessen the resulting impacts.

The issue of permanence is further complicated in the Forest Protocol if the theoretical carbon storage associated with wood products is included in the accounting for Improved Forest Management projects. ARB has recognized the difficulties in accounting for wood products after they leave the project boundary, the inability to monitor and verify wood products as a carbon pool, the lack of assurance of permanence of the stored carbon, and the danger of using past data to predict future consumer trends. The application of a 100-year time horizon for emissions from wood products serves to mask the difference in permanence of this pathway compared to other emissions reductions: the carbon stored in wood products is certain to eventually be emitted into the atmosphere. Again, the environmental review must consider the foreseeable environmental impacts of these emissions.

C. Forest offsets carry a higher risk of reversal than other offsets

Forest offsets carry a much greater risk of reversal than offsets from other sources. For example, ozone depleting substances or captured methane, once destroyed, can not be emitted at a later date. In contrast, the reductions from a forest project persist only as long as the forest remains, and can be reversed to a large degree in a short period of time through, for example, a decision to harvest the forest, or a forest fire. Similar concerns apply to carbon counted as sequestered in wood products. Lastly, forest projects are at particular risk of unintentional/unexpected reversal because there are so many carbon pools not being counted that may in fact contribute highly significant emissions.

At the June 23 workshop, ARB presented options under consideration for addressing reversals. However, even if there is a mechanism for addressing reversals at the program level, it is necessary to analyze the potential that offset prices are reduced in the short term due to the existence of offset credits that are later reversed. Lower prices would encourage greater reliance on offsets, and a reduced investment in direct reductions. Thus, offset credits with a lower risk of later reversal would be more

valuable with regard to greenhouse gas emissions, and would potentially provide greater environmental co-benefits. At the protocol level, it is necessary to ensure that project types with lower risk of reversal are significantly favored over projects with higher risk.

An additional issue that further increases the likelihood of future reversals of forest offsets is the failure to account for all carbon pools in the forest ecosystem that may be affected by forest projects. Under the CAR protocol, forest projects are not required to report several carbon pools—shrubs and herbaceous understory, lying dead wood, litter and duff, and soil. These carbon pools comprise significant portions of the carbon stored in a forest stand, in some cases comparable to the amounts of carbon stored in harvested trees.[4] While many of these carbon pools are not expected to be significantly impacted by reforestation and afforestation projects, or by many Improved Forest Management projects, even-age management can dramatically impact these carbon pools. If these carbon pools are later determined to be significantly impacted as a result of offset projects, the associated emissions will be equivalent to a reversal of some portion of the previously issued offsets. In analyzing the forest protocol, ARB must provide justification for excluding these carbon pools, as well as consider the potential environmental impacts should they later be determined to be significant. The environmental review must reflect that the forest protocol carries greater uncertainty, and the associated risk of negative environmental impacts, than other offset methodologies.

D. Sequestration in wood products is uncertain and unenforceable

The inclusion of wood products as a carbon pool in the forest project protocol directly contradicts the clear definition of "offset boundary" proposed by ARB staff. At the June 23 workshop, ARB proposed that the offset project boundary is "*defined by and includes all GHG emission sources, sinks or reservoirs that are affected by an offset project and under operational control of the offset project operator. GHG sources, sinks or reservoirs that are not under operational control of the offset project operator are not included in the offset project boundary. Only direct emission reductions or removals that occur within the offset project boundary will be credited with an offset.*"

Under the CAR forest protocol, the potential carbon storage associated with wood products is included in the accounting for Improved Forest Management projects. ARB staff has recognized the difficulties in accounting for wood products after they leave the project boundary, the inability to monitor and verify wood products as a carbon pool, the lack of assurance of permanence of the stored carbon, and the danger of using past data to predict future consumer trends. Application of a 100-year time horizon is different for wood products than for other carbon pools, since the carbon stored in wood products is certain to eventually be emitted into the atmosphere. In addition, in contrast to other carbon pools, the forest project developer not only has no control over what happens to wood products once the harvested materials have left the property, but also has no way of tracking the quantity, timing, or nature of eventual emissions from that particular project.

In addition, the inclusion of wood products as they are accounted under the CAR protocol would violate the requirement under AB 32 that offsets must be enforceable. "*Any regulation adopted by the state board [as part of AB 32] shall ensure all of the following: The greenhouse gas emission reductions achieved are real, permanent, quantifiable, verifiable, and enforceable by the state board.*" Health and Safety Code, Section 38562. However, neither the offset project developer nor ARB has the authority to

[4] For a detailed discussion of these issues, see Center for Biological Diversity letter to ARB regarding revisions to the forest protocol, dated August 4, 2010.

enforce the persistence of wood products. Furthermore, it is unjustifiable that forest projects would accrue credit for potential carbon storage in wood products without also accounting for the carbon emissions associated with the manufacture and transportation of those wood products. If ARB determines that accounting for wood carbon is critical to ensuring a conservative accounting, it would be necessary to substantially discount the carbon storage estimates, in order to account for the uncertainty associated with quantifying the wood products carbon pool and the certainty that such carbon would eventually be emitted, and to account for emissions resulting from the manufacture and transport of wood products.

V. Conclusion

Thank you very much for your consideration of these comments. We appreciate the significant effort and consideration ARB is committing to addressing these complicated and important issues. We look forward to continuing to work with ARB as you develop this policy and environmental review.

Please contact me if you have any questions. The previous comment letters cited in these comments are attached to this letter for your reference.

Sincerely,

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August 4, 2010

Mr. Eric Winegar
Office of Climate Change
California Air Resources Board

RE: Revisions to the Forest Project Protocol

Dear Mr. Winegar:

The Center for Biological Diversity submits these comments regarding the forest project protocol being developed for carbon offsets under the California Global Warming Solutions Act cap-and-trade program. We appreciate the substantial work and thought ARB is putting into the forest project protocol.

FPP 3.1 contains a number of fundamental flaws that undermine the ability of the methodology to ensure that offsets are additional, specifically with regard to baseline modeling, the exclusion of critical carbon pools, and the accounting for wood products. Other components of FPP 3.1, regarding natural forest management and even-age management, raise concerns of unintended impacts to the forest ecosystem and fail to maximize environmental co-benefits as required under AB 32. The June 23 workshop demonstrated that ARB staff has identified many of the highest priority concerns with the Climate Action Reserve's Forest Project Protocol (FPP 3.1).[1] We commend ARB for acknowledging these flaws, and we strongly encourage ARB to address these issues and undertake the substantial revisions necessary to develop a protocol that can achieve the reductions mandated by the California Global Warming Solutions Act and assure the integrity of forest offset credits. Without significant revisions, the forest protocol is inadequate to allow the forest sector to be included in an AB 32 cap-and-trade program.

I. Baseline Modeling.

The Reserve has recently decided not to require the project baseline to include forest growth that is projected to occur under legally mandated long-term management plans. California's Forest Practice Act and Rules require timberland owners to demonstrate that logging operations will not interfere with maximum sustained production of high quality timber products. For larger landowners, this demonstration requires preparation of a "sustained yield plan" or "Option A" document that calculates the long-term sustained yield (LTSY) of timber for the ownership over a 100-year period. Absent compliance with these requirements, these landowners

[1] The ARB adopted and subsequently withdrew adoption of Forest Project Protocol, version 3.0. However, Version 3.1 differs from the Version 3.0 only in that it includes changes made to sections 3.9.2 and 3.9.4 as directed by the ARB when version 3.0 was adopted. For simplicity, these comments refer to Version 3.1.

cannot lawfully log their land. In order to ensure the additionality of forest projects, these legal requirements must be reflected in the forest project baseline.

Many large landowners already have prepared and are currently using LTSY documents that were developed and approved in the absence of any potential incentives that might be created by a carbon market. For these landowners, an approved LTSY document is a presumptive indicator of business as usual. LTSY projections constitute representations to a public agency concerning a landowner's projected balance of growth and harvest over time, taking into consideration environmental and economic constraints. These representations are legally required in order to gain Cal Fire's approval of individual logging plans. Accordingly, a project proponent's representations to CalFire concerning long-term growth and harvest must should be incorporated into the forest project baseline. In sum, LTSY projections are not only "legal constraints" under the Forest Practice Rules, but also strong indicators of "business as usual" activities and congruent with the "financial constraints" analysis that the Protocol requires. These projections must be incorporated into forest project baselines in order to ensure the additionality of forest project credits. [2]

Similarly, the requirements and restrictions of Habitat Conservation Plans and Safe Harbor Agreements must be also be included in the project baseline. These are legal agreements entered into by landowners in exchange for permits to harm endangered species and their habitats. That is, although landowners enter these agreements voluntarily, a landowner's ability to carry out covered activities on his or her property is contingent upon the implementation of provisions of the agreement, which usually requires the conservation or development of habitat over the long term in exchange for permission to destroy habitat or harm endangered species in the near term. By not requiring the project baseline to include these requirements, FPP 3.1 would allow Improved Forest Management projects to claim credit for forest growth or conservation that would occur as a result of actions that are otherwise required to occur under these agreements.

II. Internal Leakage and Cherry-Picking

FPP 3.1 included two major changes that fundamentally altered the way the protocol addressed internal leakage, the shifting of timber harvesting and the associated greenhouse gas emissions within the same land ownership as the project. First, FPP 3.1 eliminated the requirement (found in previous versions of the protocol) to estimate the leakage risk for each project. Instead, FPP 3.1 uses a standard leakage risk factor, intended to incorporate all sector leakage risk, applied uniformly to all forest projects. Second, FPP 3.1 eliminated the requirement (found in previous version of the protocol under the name "forest sector protocol") to report the entity-wide carbon stocks for the entire land ownership on which the project occurs. With entity-wide reporting, reductions from an individual project could be compared to forest stocking levels for the entire property.

[2] For a more complete discussion of this issue, please see attached letters from Center for Biological Diversity, dated March 12 and April 30, 2010.

With these two changes, FPP 3.1 not only removed any meaningful controls on internal leakage, but also created perverse incentives that could encourage leakage. Project developers were no longer required to disclose entity-wide emissions—and, therefore, internal leakage—and they were subject to the same standardized leakage risk factor whether or not internal leakage were occurring. That is, FPP 3.1 not only eliminated the disincentive to shift timber harvesting and the associated emissions to other locations within the landowner's operations, but also effectively encouraged such shifting. These changes created a loophole that would allow project developers to game the system by developing some areas as offset projects, while shifting harvesting to other areas of their land holdings, maintaining or even increasing overall greenhouse gas emissions throughout their operations. Presumably, large timber operations have the most flexibility to shift harvests within large land holdings, but the same loophole is potentially available to timber operations of all sizes.

At the same time, FPP 3.1 is highly vulnerable to "cherry-picking," i.e., the selection of project areas based on initial stocking levels to produce illusory, non-additional reductions. For example, a landowner could designate a project area that includes a large component of recently harvested forest stands in order to create a project with forest stocking levels near the legal baseline and below the "common practice" stocking level for the overall property. Because FPP 3.1 sets the baseline for the project at current stocking levels if the site is below "common practice" stocking levels, it incentivizes projects that count as greenhouse gas reductions the annual tree growth and regeneration that would have occurred any on the project area under business-as-usual practices, thereby generating offset credits without making any changes at all to the management of the project site.

The problem is made worse by the fact that the project baseline is based on the "common practice" stocking level derived from the Forest Inventory and Assessment (FIA) average for the assessment area. Some areas are dominated by single landowners, such as large timber companies, who have reduced stocking levels across their properties and thus significantly lowered the local average FIA stocking levels against which their projects are compared. By allowing these landowners to avail themselves of a reduced baseline relative to project harvest levels, FPP 3.1 perversely rewards those who have historically done the most to degrade the forests. In addition, this methodology potentially encourages large landowners to increase harvest operations to manipulate the FIA average in the assessment area, lowering the "common practice" baseline and increasing the offset value of projects without changing the management of the project site.

Obviously, there is a need for a strong disincentive against projects causing internal leakage and a clear prohibition against efforts to game the system. A critical component of the solution to this problem is a requirement that project developers report entity-wide carbon stocks. Carbon sequestration at an individual project should count only to the extent that the carbon stocks increase across the project proponent's overall operations, or at the regional scale for landowners that dominate the local FIA region.

III. Even-age management

The inclusion of even-age management—specifically including clearcutting—as an Improved Forest Management project is contrary to the requirement under AB 32 for the cap and trade program to "maximize additional environmental and economic benefits for California, as appropriate." Forest clearcutting is the management option with the highest risk of exacerbating the impacts of climate change while simultaneously threatening forest ecosystems, water quality, and wildlife. Including even-age management not only potentially encourages clearcutting by making such operations more profitable, it conversely undermines the incentive for landowners to consider alternative management scenarios that are less damaging to the forest ecosystem and the climate.

The threat that the protocol could incentivize the conversion of natural forest to even-age management is of particular concern. Improved Forest Management projects that employ even-aged management will entail dramatic environmental impacts, including the loss of biological diversity, degradation of forest structure and composition, damage to watershed function and water quality, elimination of wildlife habitat, and fragmentation of forest connectivity. Because even-age management is the only silvicultural practice expressly mentioned in FPP 3.1, the protocol appears to endorse even-age management as a preferred management type, although this is presumably not the intention.

In addition, the inclusion of even-age management increases the risk that projects will be able to claim credit for tree growth that is not truly additional. Forest clearcutting can be implemented prior to the initiation of a project or outside the project area, in order to decrease the initial stocking level for the project baseline or suppress the local FIA average stocking level. Although other harvest methods could also be used to reduce stocking levels, clearcutting is obviously the most effective method to do so. Also**,** although FPP 3.1 includes a 10-year "look-back" in determining the project carbon baseline, large timber operations easily have the capacity to continuously develop projects that consist of stands that were clearcut 10 years earlier.

The inclusion of even-age management exacerbates a number of other concerns regarding the integrity of the protocol. Forest clearcutting can have substantial impacts on a number of forest carbon pools beyond the harvested trees, decreasing lying dead wood, litter and duff, and soil carbon pools much more extensively than less intensive harvest methods. Concerns regarding the permanence of Improved Forest Management projects, especially in the absence of a conservation easement, are therefore greater when clearcutting is an option, due to the potential for complete liquidation of numerous forest carbon pools.

FPP 3.1 includes certain requirements for projects that employ even-age management, but these requirements themselves are problematic.[3]

[3] Although initially included within the Natural Forest Management section in FPP version 3.0, these requirements were moved to a newly created section titled "Balancing Age and Habitat Classes" in version 3.1.

> "For projects that employ even-aged management practices, harvesting must be limited to stands no greater than 40 acres. Stands adjacent to recently harvested stands must not be harvested using an even-aged harvest until the average age of the adjacent stand is at least 5-years old, or the average height in the adjacent stand is at least 5 feet. On a watershed scale up to 10,000 acres, all projects must maintain, or make progress toward maintaining, no more than 40 percent of their forested acres in ages less than 20 years. Areas impacted by a Significant Disturbance are exempt from this test until 20 years after reforestation of such areas." FPP 3.1, Section 3.9.4.

Presumably, it was the intention of the Climate Action Reserve to provide a minimum set of environmental standards for forest projects utilizing even-age management. However, this paragraph fails to reflect the limitations of the California Forest Practice Act and Rules and, more importantly, fails to provide meaningful protection against the environmental damage caused by excessive clearcutting within a particular watershed. For example, FPP 3.1 would allow a landowner to clearcut up to 40% of a watershed at any one time, as long as the clearcuts are executed in 40-acre patches. In addition, adjacent stands may be clearcut at 5-year intervals, regardless of the success of the regeneration, or adjacent stands may be immediately harvested if the earlier clearcut is replanted with 5-foot-tall saplings. It is unclear whether the limitation on the percentage of young stands refers to watershed-scale projects or to the watershed surrounding a project. In any case, this provision could allow clearcutting of 4,000 acres at once if the surrounding 6,000 acres includes a large component of trees older than 20 years, even if the surrounding area is not owned by the project developer. Furthermore, even in those instances where the watershed is largely owned by the project proponent, FPP 3.1 still allows for complete clearcutting of the entire watershed on a 50-year timeline.[4]

The complete turnover of entire watersheds on a 50-year period, executed through a series of 40 acres clearcuts separated at best by five-year intervals, and with no guarantee for the successful regeneration of the clearcut areas is not the kind of forest management that California should be allowing—much less incentivizing—through the AB 32 cap and trade program.

IV. Natural Forest Management

The Natural Forest Management provision establishes a requirement that projects maintain or increase biological diversity at the project site. However, changes adopted in FPP 3.1 dramatically undermine these provisions. The definition of Natural Forest Management previously required "All Forest Projects [to] promote and maintain a diversity of native species and utilize management practices that promote and maintain native forests comprised of multiple ages and mixed native species." However, in FPP 3.1, the phrase "at multiple landscape scales" was inserted at the end of this sentence. Although this was ostensibly intended to encourage project developers to develop structural diversity at multiple geographic scales, the change potentially opened the definition to the interpretation that forest diversity in the areas

[4] For detailed recommendations with regard to FFP 3.1 section 3.9.4, please see the attached letter to the Climate Action Reserve, dated May 7, 2010.

surrounding a forest project can justify the reduction of diversity within the project area. This would potentially apply even where the surrounding forest is not under the management of the project developer. Also, a landowner might attempt to claim that multiple even-age plantation stands at various stages of regeneration constitute age diversity at the landscape scale. In order to retain the intentions of this provision to provide basic environmental criteria, it is critical that the protocol clearly require the promotion and maintenance of species and age diversity "*within the project area.*" It is extremely difficult to understand how even-age management could possibly qualify as "natural forest management" as defined in FPP 3.1. That is, forest clearcutting generally does not "promote and maintain native forests comprised of multiple ages and mixed native species," but rather *reduces* structural diversity.

V. Carbon Pools.

Under FPP 3.1, Improved Forest Management projects are not required to report several carbon pools—shrubs and herbaceous understory, lying dead wood, litter and duff, and soil. These carbon pools comprise significant portions of the carbon stored in a forest stand, in some cases comparable to the amounts of carbon stored in harvested trees.[5] These carbon pools are not expected to be significantly impacted by reforestation and afforestation projects, or by many Improved Forest Management projects involving uneven-age management. For many projects, the changes in these carbon pools due to the project are unlikely to be significantly different from baseline conditions.

In contrast, even-age management can dramatically impact these carbon pools. Forest clearcutting not only eliminates the forest canopy cover, it often results in the complete mortality of all vegetation on site, and their roots. This exposes the litter and soil layers to increased temperatures and drying. Existing dead wood and harvest debris are often removed or burned on site. Intensive soil treatment, such as deep ripping to prepare the site for replanting, further destroys the soil structure and leads to increased rates of erosion, resulting in the loss of soil and the associated carbon. In all, forest clearcutting can have substantial impacts on a number of forest carbon pools beyond the harvested trees, in ways that less intensive harvest methods do not. For this reason, it is critical that reporting of the vulnerable carbon pools—shrubs and herbaceous understory, lying dead wood, litter and duff, and soil—be required for Improved Forest Management projects that include even-age management, even if these pools are not required to be reported for other forest project types.

Similarly, FPP 3.1 does not require Improved Forest Management projects to report carbon emissions associated with pre-and post-harvest operations at the site. This emission source is unlikely to be significantly different from baseline conditions for many project types. However, even-age management involves intensive mechanical treatment of the soil throughout

[5] To cite one example, the DOE Technical Guidelines for Voluntary Reporting of Greenhouse Gas Program (1605b) estimates that a Pacific Southwest mixed-conifer forest contains more carbon collectively stored in soil (19.2 tonnes per acre), litter and duff (12.6), down dead wood (2.6), understory (0.9), and standing dead wood (2.5), than in live trees (25.4 tonnes per acre).

the entire harvest site, using heavy machinery to deep-rip the soil, the application of fertilizers and herbicides, and the transport of seedlings for regeneration. Therefore, it is critical that reporting of emissions associated with site treatment in clearcutting is required for Improved Forest Management projects that include even-age management, even if these emissions are not required to be reported for other forest project types.

VI. Wood products.

Under FPP 3.1, the potential carbon storage associated with wood products is included in the accounting for Improved Forest Management projects. ARB staff has recognized the difficulties in accounting for wood products after they leave the project boundary, the inability to monitor and verify wood products as a carbon pool, the lack of assurance of permanence of the stored carbon, and the danger of using past data to predict future consumer trends. Application of a 100-year time horizon is different for wood products than for other carbon pools, since the carbon stored in wood products is certain to eventually be emitted into the atmosphere. In addition, in contrast to other carbon pools, the project developer has no control over what happens to wood products once the harvested materials have left the property, and no way of tracking the ultimate emissions from those materials.

The inclusion of wood products directly contradicts the clear definition of "offset boundary" proposed by ARB staff. In addition, the inclusion of wood products would violate the requirement under AB 32 that greenhouse gas reductions must be enforceable, as ARB is currently considering no options for enforcing the persistence of these wood products. Furthermore, it is unjustifiable that forest projects would accrue credit for potential carbon storage in wood products without also accounting for the carbon emissions associated with the manufacture and transportation of those wood products. If ARB determines that accounting for wood carbon is critical to ensuring a conservative accounting, it would be necessary to substantially discount the carbon storage estimates, in order to account for the uncertainty associated with quantifying the wood products carbon pool and the certainty that such carbon would eventually be emitted, and to account for emissions resulting from the manufacture and transport of wood products.

VII. Conclusion

FPP 3.1 contains a number of flaws that must be addressed in order to assure the additionality of offsets from the forest sector, as well as a number of provisions that raise concerns regarding impacts to forest ecosystems. Inclusion of even-age management exacerbates a host of problems, and threatens to compromise ecosystem protections, as well as the integrity of the program.

Thank you very much for your consideration of these comments. Please do not hesitate to contact me if you have any questions.

Sincerely,

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CENTER *for* BIOLOGICAL DIVERSITY

March 12, 2010

Via email: policy@climateactionreserve.org

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523 W. Sixth Street, Suite 428
Los Angeles, CA 90014

Re: Preliminary Guidance on Forest Project Protocol, Section 6.2.1.1 (Legal Requirements for Project Baseline; March 18, 2010 Workshop)

Dear Mr. Broekhoff:

The Center for Biological Diversity (the "Center") welcomes the opportunity to comment on a draft guidance document[1] developed by the Climate Action Reserve (the "Reserve") regarding the relationship between California forestry regulations and the baseline for forest management projects under the Reserve's Forest Project Protocol (the "Protocol").

The Reserve's guidance document correctly provides that certain requirements of California law must be reflected in the baseline for forest projects under the Protocol. California's Forest Practice Act and Rules require timberland owners to demonstrate that logging operations will not interfere with maximum sustained production of high quality timber products. For larger landowners, this demonstration requires preparation of a "sustained yield plan" or "Option A" document that calculates the long-term sustained yield of timber for the ownership over a 100-year period. Absent compliance with these requirements, these landowners cannot lawfully log their land. In order to ensure the additionality of forest projects, these legal requirements must be reflected in the forest project baseline.

For the same reasons, the baseline also must ensure that landowners do not obtain carbon credits for actions they would have taken anyway ("business as usual"). This requirement is reflected in the two-part definition of additionality set forth in AB 32, the California Air Resources Board's preliminary draft cap and trade regulations, and the Protocol itself: to be additional, a project must exceed *both* applicable legal standards *and*

[1] Climate Action Reserve, *Guidance Document for Verifiers, Project Developers, and Interested Parties* (Feb. 24, 2010), *available at* http://www.climateactionreserve.org/how/protocols/adopted/forest/events/ (last visited March 10, 2010).

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business-as-usual practices. Above all else, a landowner's adopted projection of long-term sustained yield is a good indicator of business as usual. Thus both components of the additionality definition require that these projections be incorporated into the forest project baseline.

The Reserve's current guidance document thus reflects a correct interpretation of California law. Altering the Protocol or the guidance document in a manner that fails to ensure the additionality of forest projects, in contrast, would risk rendering the Protocol of questionable utility—and carbon credits issued under the Protocol of negligible value—in AB 32's emerging compliance market.

I. Legal Background

The Reserve's guidance document focuses primarily on the requirements of the Forest Practice Act and Rules. Also critical, however, are the requirements of AB 32, draft regulations currently under consideration by the Air Resources Board, and provisions of the Protocol itself governing the additionality of offset projects.

A. A Demonstration of Maximum Sustained Production and Long-Term Sustained Yield Is a Requirement of California Forestry Law.

One of the key goals of California's Forest Practice Act is to achieve "maximum sustained production of high-quality timber products . . . while giving consideration to values relating to recreation, watershed, wildlife, range and forage, fisheries, regional economic vitality, employment, and aesthetic enjoyment." (Pub. Res. Code § 4513(b).) The California Supreme Court has called maximum sustained production "perhaps *the* core concept of the Forest Practice Act." (*Envt'l Prot. Info. Ctr. v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 475, fn. 4 (hereafter "*EPIC*").)

In accordance with this goal, each individual timber harvesting plan ("THP") must use "systems and alternatives which achieve maximum sustained production of high quality timber products." (Forest Practice Rules[2] ("FPR") §§ 913, 933, 953.) The Forest Practice Rules allow landowners to make this demonstration in more than one way. However, owners of more than 50,000 acres of timberland must choose one of two approaches: they may prepare either a sustained yield plan ("SYP") or a so-called "Option A" document. (See FPR §§ 913.11(c)(5), 933.11(c)(5), 953.11(c)(5).)

Both the SYP and the Option A require a demonstration of long-term sustained yield ("LTSY") over a 100-year planning period. (See FPR § 895.1 [defining LTSY as "the average annual growth sustainable by the inventory predicted at the end of a 100 year planning period"].) A landowner demonstrates LTSY by projecting and balancing growth and harvest over time such that projected harvest levels do not exceed overall yield in the last decade of the planning period. (See FPR §§ 913.11(a)(2), (b)(4),

[2] All references to the "Forest Practice Rules" or "FPR" are to title 14 of the California Code of Regulations.

933.11(a)(2), (b)(4), 953.11(a)(2), (b)(4).) The California Supreme Court has observed that "the long-term sustained yield estimate is at the core of a sustained yield plan." (*EPIC*, *supra*, 44 Cal.4th at p. 501.) Such an estimate also forms the core of an Option A.

A demonstration of LTSY must account for "biologic and economic factors," as well as "limits on productivity due to constraints imposed from consideration of other forest values." (FPR §§ 913.11(a)(1), 933.11(a)(1), 953.11(a)(1) [Option A]; 913.11(b)(2), (3), 933.11(b)(2), (3), 953.11(b)(2), (3) [SYP].) According to the leading legal treatise on the Forest Practice Act, this means that "a landowner must project the intended yield of timber products only after accounting for any limits on the amount of harvest that can be achieved while complying with the environmental protection requirements of the [Forest Practice Act], FPRs, and other applicable laws and regulations."[3] The Supreme Court has agreed with this view, noting that if restrictions on harvest related to these considerations are not properly analyzed at the outset of planning, LTSY projections will be wrong. (See *EPIC*, *supra*, 44 Cal.4th at pp. 503-04.)

In order to harvest timber, therefore, a landowner must demonstrate compliance with the maximum sustained production goals of the Forest Practice Act, and a large landowner must do so by preparing either an Option A or a SYP that projects LTSY. The LTSY calculation, in turn, must encompass and reflect compliance with all other environmental laws and regulations. These are clearly regulatory requirements under California law.

B. Reductions Associated with Forest Projects Must Exceed Both Minimum Legal Requirements and "Business As Usual" Practices.

The overarching goal of AB 32, California's Global Warming Solutions Act, is to reduce the state's greenhouse gas emissions to 1990 levels by 2020. Health & Saf. Code § 38550. AB 32 authorized the Air Resources Board to develop a "market-based compliance mechanism" to assist in this effort. Health & Saf. Code § 38570. The Air Resources Board's "Scoping Plan" for AB 32 sketched the outlines of this market-based system and envisioned the use of "offsets"—including offsets for forest projects—as one tool for achieving AB 32's overall emissions reduction goals.[4]

Carbon credits issued by the Reserve are thus expected to function as offsets under AB 32's cap-and-trade system. Emitters in capped sectors will look to purchase offsets as a cost-effective alternative to reducing their own emissions. In this context, every credit issued by the Reserve could represent a tonne of very real greenhouse gas emissions that otherwise would have to be controlled or avoided. In a very real and direct sense, therefore, carbon offsets *enable* carbon emissions.

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[3] S. DUGGAN & T. MUELLER, GUIDE TO THE CALIFORNIA FOREST PRACTICE ACT AND RELATED LAWS at p. 161 (2005).

[4] Cal. Air Res. Bd., *Climate Change Scoping Plan: A Framework for Change* at pp. 36-38 (Dec. 2008); see also *id.*, Appendix C, at pp. C-21 to C-23.

This is why additionality is a critical concern in any carbon offset regime. If a carbon credit is awarded for activities that would have happened anyway—either because the activities are required by law, or because the project proponent would have undertaken the activities for other reasons—then that credit facilitates a ton of emissions without any corresponding reduction or sequestration.

Existing law, proposed regulations, and the Protocol itself thus reflect a two-pronged definition of additionality: an activity must exceed *both* the requirements of applicable law *and* the norms of business-as-usual practice. For example, AB 32 provides that emissions reductions under a market-based program must be "in addition to any greenhouse gas emission reduction otherwise required by law or regulation, *and* any other greenhouse gas emission reduction that otherwise would occur." (Health & Saf. Code § 38562(d)(2) (emphasis added).) The Air Resources Board's preliminary draft regulation implementing a cap-and-trade system under AB 32 provides that emission reductions are considered additional only if they (1) "are not required by or undertaken to comply with any federal, state or local law or ordinance, including any regulation, consent order, and Memorandum of Understanding"; and (2) "are not considered common practice or would not have occurred under a business-as-usual scenario."[5]

The Protocol itself employs a similar two-part test for additionality. Forest projects must satisfy *both* a "legal requirement test" (i.e., they must achieve reductions or removals beyond those resulting from compliance with "any federal, state, or local law, statute, rule, regulation, or ordinance") *and* a "performance test" (i.e., they must achieve reductions or removals above and beyond those "that would result from engaging in Business as Usual activities").[6] Indeed, the Protocol defines a project as additional *only* "if it would not have been implemented without incentives provided by the carbon offset market, including the incentives created through the Climate Action Reserve program."[7] Both the "legal" test and the "performance" test must be reflected in the baseline calculation under sections 6.2.1.1 and 6.2.1.2 of the Protocol.[8]

In sum, additionality is critical because carbon credits, especially in a compliance market like the one being assembled for AB 32, may be purchased in lieu of controlling actual emissions. Accordingly, those credits must represent real reductions, and in order for those reductions to be real, they have to be additional. If they are not additional, they will lead directly to increased greenhouse gas emissions. For this reason, non-additional credits cannot play any role in AB 32's compliance market.

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[5] Cal. Air Res. Bd., Preliminary Draft Regulation for a California Cap-and-Trade Program (Nov. 24, 2009) at p. 64 (proposed § 96240(c)(1), (2)).
[6] Protocol at p. 6.
[7] Climate Action Reserve, Forest Project Protocol v3.1 (Oct. 7, 2009) (hereafter "Protocol") at p. 64.
[8] See Protocol at pp. 47-48.

II. The Reserve's Guidance Document Correctly Incorporates LTSY into Forest Project Baseline Calculations.

In order to ensure additionality, the LTSY demonstration contained in an Option A or SYP must be incorporated into the Protocol's baseline for forest projects. This is necessary for two basic reasons. First, preparation of a SYP or Option A document is not voluntary, but rather is legally required, for ownerships larger than 50,000 acres. Second, a landowner's previously approved SYP or Option A document and LTSY projections—adopted without consideration for any incentives the carbon market might provide—illustrate the most likely "business as usual" scenario for that ownership. Both components of AB 32's additionality definition thus require that SYP or Option A documents be reflected in the forest project baseline under the Protocol.

A. Baseline Calculations Must Reflect Legal Requirements, Including the Option A/SYP Requirement.

Critics of the Reserve's guidance document have argued that an Option A or SYP is a purely voluntary document (one that can be rescinded or altered at any time) and that the growth and harvest levels used to determine LTSY are left to the landowner's sole and complete discretion.[9] These arguments are incorrect as a matter of law.

As previously discussed, any landowner holding more than 50,000 acres of timberland must prepare either an Option A or a SYP. Without preparing one or the other document, such landowners cannot harvest timber commercially. The contents of those documents, moreover, are not left entirely to the landowner's discretion, but rather must meet a number of specific requirements under the Forest Practice Rules. (See FPR §§ 913.11(a), (b), 933.11(a), (b), 953.11(a), (b), 1091.1-1091.15.) Therefore, these are not "voluntary" documents in any commonly accepted sense of the word. Rather, they are legal prerequisites to timber harvest on large ownerships.

Critics also have claimed that the LTSY calculations underlying Option A and SYP documents are not actually legally required because they can be changed at any time. This claim is misleading at best. LTSY calculations, like SYPs and Option A documents, must be performed according to specific standards in the Forest Practice Rules, and therefore cannot be changed according to a landowner's whim. Indeed, according to the California Department of Forestry and Fire Protection, LTSY calculations may be modified only for specific reasons.[10] Once again, the mere fact that an LTSY calculation might be modified from time to time, in compliance with strict legal standards, does not in any way render it "voluntary."

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[9] See Cal. Forestry Assn., Cal. Farm Bureau Federation, and Forest Landowners of California, Letter to L. Adams, Chair, Climate Action Reserve (Feb. 2, 2010) (hereafter "CFA Letter") at pp. 1-2.

[10] Cal. Dept. of Forestry & Fire Prot., Memorandum to G. Gero, Climate Action Reserve, Re: Long Term Sustained Yield Regulatory Requirements (Jan. 25, 2010) at pp. 2-3.

In order to harvest timber lawfully in California, all timberland owners must demonstrate that their harvest plans are consistent with maximum sustained production of high-quality timber products, and owners of more than 50,000 acres of timberland must prepare either an Option A or a SYP containing this demonstration. The California Department of Forestry and Fire Protection has characterized these documents as legal requirements. Under governing additionality standards—including those of AB 32, the Air Resources Board's proposed cap-and-trade regulations, and the Protocol itself—such legal requirements must be reflected in the forest project baseline.

B. Baseline Calculations Must Reflect a Landowner's "Business As Usual" Practices As Set Forth in an Approved Option A or SYP.

Critics of the Reserve's guidance document also have argued that the demonstration of LTSY in an Option A or SYP document may exceed the "regulatory minimum" required, primarily because some landowners may be planning to increase timber volume on their lands over time at rates beyond those hypothetically necessary to demonstrate that harvest will not exceed growth over the relevant planning horizon. Certain critics of the Reserve's guidance document have gone so far as to suggest that landowners should be granted carbon credits for simply following the LTSY projections in their existing Option A or SYP documents.[11]

This argument fails because it focuses at best on only one of the two prongs of the definition of additionality. Under AB 32, draft cap-and-trade regulations, and the Protocol itself, reductions associated with a forest project must not only go beyond the "regulatory minimum" under applicable law, but also must go beyond "business as usual." Yet an approved SYP or Option A is, more than anything else, an indicator of the landowner's long-term plan for "business as usual." These are 100-year plans that justify present logging practices by projecting and balancing growth against planned harvest over time, while taking into account all other relevant environmental, social, and economic constraints. (See FPR §§ 913.11(a), (b), 933.11(a), (b), 953.11(a), (b).) Accordingly, the growth and harvest projections in an existing Option A or SYP were almost certainly adopted for the purpose of meeting the legal prerequisites for approval of logging plans, not for the purpose of obtaining market incentives for carbon sequestration. Even if a landowner has elected to project harvest levels below the theoretical maximum allowable under the Forest Practice Act and Rules, he or she may have done so for economic or other reasons (or in response to other incentives) unrelated to the availability of carbon credits. An existing Option A or SYP thus provides a good indication of what the landowner was planning to do anyway. As indicators of business as usual, these documents must be reflected in the forest project baseline.

In short, granting carbon credits to landowners who simply follow an approved Option A or SYP—even if that Option A or SYP arguably exceeds some theoretical

[11] See CFA Letter at p. 2 (claiming that guidance document's interpretation would preclude landowners from "creating forest carbon credits because the baseline and the project line would be one-in-the-same").

"regulatory minimum"—violates one of the two key tests for additionality. Any revision to the Protocol or the Reserve's guidance document allowing such "business as usual" credits would create a pool of offsets for which additionality cannot be demonstrated.

III. Conclusion

The two-pronged definition of additionality provided under AB 32, proposed cap-and-trade regulations, and the Protocol itself requires that Option A documents, SYPs, and underlying LTSY calculations be incorporated into the forest project baseline. These documents are not only legal requirements under California forestry law, but also represent "business as usual" for the many landowners already operating according to their provisions. Accordingly, any modification to the Protocol designed to remove these legal requirements from the baseline calculation would lead to the creation of carbon credits for non-additional actions.

Such a modification could deprive these credits of much of their potential value. Carbon credits in a compliance system literally represent greenhouse gases emitted into the atmosphere rather than controlled. Accordingly, a failure to ensure the additionality of such credits would be inconsistent with AB 32's emission reduction goals. If the Reserve were to change the Protocol or its guidance documents to eliminate Option A documents, SYPs, and LTSY calculations from the forest project baseline calculation, the Air Resources Board would be legally bound to conclude that the Protocol does not comply with the additionality requirements of AB 32. Thus, the somewhat ironic consequence of an attempt to expand access to the carbon markets by relaxing additionality standards would be the Air Resources Board's inability to approve the Protocol as an emissions reduction methodology—thus excluding participating landowners from a potentially lucrative market for carbon offsets. Both the Reserve and the critics of the proposed guidance document should keep in mind that advocating for the creation of dubious carbon credits is not only a poor environmental decision, but also a risky business decision.

The Reserve Board should affirm the February 24, 2010 guidance document as a correct interpretation of California law. Thank you for your consideration of our views in this matter. We look forward to participating in the Reserve's upcoming workshop.

Sincerely,

Kevin P. Bundy
Senior Attorney

CENTER *for* BIOLOGICAL DIVERSITY

April 30, 2010

Via email: policy@climateactionreserve.org

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Re: Preliminary Guidance on Forest Project Protocol, Section 6.2.1.1 (Legal Requirements for Project Baseline; Supplemental Comments)

Dear Mr. Broekhoff:

The Center for Biological Diversity (the "Center") submits the following supplemental comments on the draft guidance document[1] developed by the Climate Action Reserve (the "Reserve") regarding the relationship between California forestry regulations and the baseline for forest management projects under the Reserve's Forest Project Protocol (the "Protocol").[2]

As you know, we participated in the Reserve's March 18, 2010 workshop regarding this issue. After considering the various arguments advanced by workshop participants, we continue to believe that a demonstration of maximum sustained production of timber products, in the form of the long term sustained yield ("LTSY") projections required of large landowners under the California Forest Practice Rules, is a legal requirement that must be reflected in the baseline for forest management projects under the Protocol. Our previous comments on the guidance document, dated March 12, 2010, discuss the legal and policy reasons for this position in detail. Rather than reiterate those reasons in detail here, we hereby incorporate our prior comments by reference.

These supplemental comments identify additional reasons why LTSY projections must be incorporated into the baseline for improved forest management projects. Large industrial landowners, as a legally required condition of timber harvesting, must demonstrate maximum sustained production by representing to CalFire that harvest will not exceed growth over time. Those representations thus presumptively indicate

[1] Climate Action Reserve, *Guidance Document for Verifiers, Project Developers, and Interested Parties* (Feb. 24, 2010), *available at* http://www.climateactionreserve.org/how/protocols/adopted/forest/events/ (last visited March 10, 2010).
[2] All further citations to the "Protocol" herein refer to Climate Action Reserve, *Forest Project Protocol v3.1* (Oct. 7, 2009).

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"business as usual" conditions for baseline purposes. Under the Forest Practice Rules, moreover, LTSY projections must consider the same basic factors—growth and harvest projections, economic constraints, and other environmental values—as the financial analysis required as part of the Protocol's "performance test" for forest project baseline calculation. The text of the Protocol itself thus provides a strong basis for incorporating LTSY calculations into the project baseline.

The primary function of a baseline is to provide a quantitative basis for ensuring the additionality of forest project carbon credits. Under the Protocol, a project is additional only if "it would not have been implemented without incentives provided by the carbon offset market . . . ." Protocol at 64. Accordingly, the Protocol requires forest projects to satisfy both a "legal requirement test" and a "performance test," both of which must be included in the baseline calculation.[3] *See* Protocol at 5-7, 64. These dual tests underlie the Protocol's "performance-based" approach to additionality.

As a threshold matter, the Reserve must consider a project proponent's approved LTSY document to be a presumptive indicator of business as usual. LTSY projections constitute representations to a public agency concerning a landowner's projected balance of growth and harvest over time, taking into consideration environmental and economic constraints. These representations are legally required in order to gain CalFire's approval of individual logging plans.[4] Accordingly, the Reserve must presume that a project proponent's representations to CalFire concerning long-term growth and harvest

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[3] As pointed out in our previous comments, both AB 32 and the Air Resources Board's draft cap and trade regulations reflect a similar two-part definition: offset projects must result in emissions reductions that are not otherwise required by any law or regulation, *and* must result in emissions reductions that otherwise would not occur. Health & Saf. Code § 38562(d)(2); *see also* Cal. Air Res. Bd., Preliminary Draft Regulation for a California Cap-and-Trade Program (Nov. 24, 2009) at 64 (proposed § 96240(c)(1), (2)).

[4] In comments submitted in advance of and during the March 18, 2010 workshop, industry representatives argued that LTSY projections are "legal constraint[s]" only when incorporated into individual timber harvest plans, and that once a THP is completed and closed, any LTSY projections "above regulatory minimums" revert to being "voluntary." *See* Cal. Forestry Ass'n et al. (March 12, 2010) at 3. The argument renders the LTSY requirement essentially meaningless. Industry seems to be arguing that individual THPs, which are effective for three to five years, must be logged as if the landowner intends to comply with the 100-year projections contained in the LTSY demonstration submitted with the THP, but that once the THP is completed, the 100-year projections no longer hold. Under this analysis, however, the 100-year LTSY projections as to the entire ownership become utterly illusory; the growth projections in the LTSY document, if effectively abandoned once the THP is complete, cannot guarantee that the logging operations conducted under the THP will not interfere with the long-term balance between growth and harvest. Put another way, if a "long-term" sustained yield document has no real long-term existence, it *cannot* constitute a meaningful demonstration that an individual THP actually achieves maximum sustained production as required by law.

projections are, in fact, true representations, and should incorporate those representations into the forest project baseline. This is consistent with a performance-based (rather than project-based) approach to additionality.[5]

A presumption that LTSY projections must be incorporated into project baselines also finds support in the close agreement between the financial analysis requirements of the Protocol and the LTSY requirements of the Forest Practice Rules. The stated purpose of the Protocol's "performance test" is to ensure that projects "achieve GHG reductions or removals above and beyond any GHG reductions or removals that would result from engaging in Business As Usual activities . . . ." *Id.* at 6. The Protocol states that improved forest management projects "automatically" satisfy the performance test if they follow the baseline estimation requirements in Section 6.2.1. *Id.* at 7. Section 6.2.1 requires a demonstration that the project baseline incorporates not only "legal constraints" but also "financial constraints." *Id.* at 47-48. In particular, the project proponent either must provide a financial analysis projecting growth and harvest over time and demonstrating that the baseline is financially feasible considering "all legal, physical, and biological constraints," or must provide evidence that baseline assumptions are similar to practices on comparable properties within the project area. *See id.*

Under the Forest Practice Rules, a landowner's LTSY document must consider the same basic factors as the financial analysis required under Protocol section 6.2.1.2. In order to harvest timber, forest landowners with more than 50,000 acres *must* prepare a document containing LTSY projections, in the form of either an "Option A" or a Sustained Yield Plan ("SYP"). Cal. Forest Practice Rules (hereafter "FPR"), 14 Cal. Code Regs. §§ 913.11(c)(5), 933.11(c)(5), 953.11(c)(5). The LTSY document must project growth and harvest over a 100-year period in light of "biologic and economic factors" as well as "limits on productivity due to constraints imposed from consideration of other forest values." FPR §§ 913.11(a)(1), 933.11(a)(1), 953.11(a)(1) [Option A]; 913.11(b)(2), (3), 933.11(b)(2), (3), 953.11(b)(2), (3) [SYP].

The factors modeled in the LTSY document required by the Forest Practice Rules and the factors considered in the financial analysis required by the Protocol are thus closely congruent. Indeed, given this congruence, Reserve verifiers should view with great suspicion any differences between an approved LTSY document and the financial analysis submitted for a forest project. Project proponents should not be allowed to tell CalFire one thing and the Reserve another. A project proponent's approved LTSY

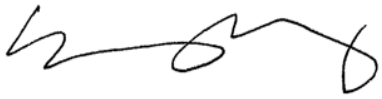
[5] We understand that members of the working group who helped to develop the Protocol expressed a strong preference for a performance-based approach; several stakeholders at the workshop feared that consideration of LTSY in baseline calculations would move the Protocol away from a performance-based approach and toward the disfavored project-based approach. The fear is groundless; nothing in the incorporation of LTSY assumptions into a project baseline requires a project-based demonstration of additionality. Indeed, a requirement that LTSY projections be incorporated into *all* forest project baselines is characteristic of a performance-based approach.

document thus represents financially feasible "business as usual" conditions for purposes of the baseline "performance test." Accordingly, the Reserve should adopt the presumption that a landowner's approved LTSY document represents projected "business as usual" conditions in the absence of incentives provided by the carbon offset market.

In sum, LTSY projections are not only "legal constraints" under the Forest Practice Rules, but also strong indicators of "business as usual" activities and congruent with the "financial constraints" analysis that the Protocol requires. These projections must be incorporated into forest project baselines in order to ensure the additionality of forest project credits.

Thank you for your consideration of these supplemental comments. As always, please feel free to contact me at (415) 436-9682 x313 or at kbundy@biologicaldiversity.org with any questions.

Sincerely,



Kevin P. Bundy
Senior Attorney

July 30, 2010

Gary Gero, President
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RE: Comments on Proposed Amendments to Baseline Determination of the Forest Project Protocol Version 3.1

Dear Mr. Gero:

The Center for Biological Diversity submits these comments regarding the Climate Actions Reserve's proposed amendments to the forest project protocol version 3.1 (FPP 3.1). These comments are submitted in addition to comment letters previously submitted by the Center for Biological Diversity.

1. Proposed clarification to 6.2.1.1 regarding long-term sustained yield projections.

The proposed "clarification" ignores the concerns we raised in previous comment letters regarding the need to incorporate long-term sustained yield projections into the forest project baselines. To summarize the conclusion of our previous comments, LTSY projections are not only "legal constraints" under the Forest Practice Rules, but also strong indicators of "business as usual" activities and congruent with the "financial constraints" analysis that the Protocol requires. These projections must be incorporated into forest project baselines in order to ensure the additionality of forest project credits. If the proposed clarification is adopted by the Reserve, the Air Resources Board would be legally bound to reject FPP 3.1 and revise the protocol to comply with the additionality requirements of AB 32.

Furthermore, in order to harvest timber, a landowner must demonstrate compliance with the maximum sustained production (MSP) goals of the Forest Practice Act, and a large landowner must do so by preparing either an Option A or a SYP that projects LTSY. By incorporating this requirement into the baseline modeling only while a THP remains active essentially renders the demonstration of MSP meaningless, because a THP is "active" only as long as it takes to harvest the timber.

2. Proposed revisions to 6.2.1.1 regarding Habitat Conservation Plans.

Incorporating the provisions of Habitat Conservation Plans and Safe Harbor Agreements into the project baseline is a significant improvement over the previous language. However, the decision to exclude HCPs and SHAs initiated less than a year before the start of the offset project exposes the protocol to gaming, where landowners deliberately postpone the completion of HCPs and HCAs. In addition, it unnecessarily ignores real contraints, even when those constraints may be expected at the time the project is initiated. The limitation also encourages the creation of non-additional credits, by providing an incentive for landowners to concentrate future constraints within the project areas, when other lands may otherwise have been identified for conservation. Lastly, the Reserve did not provide any reasons for adopting this exception in the "Rationale" document accompanying these proposed changes. It is therefore impossible to evaluate why the Reserve believes this exception is needed.

3. Proposed revision to 6.2.1 regarding cherry-picking.

As we explain in a separate comment letter submitted in conjunction with other conservation organizations, the proposed modification to the baseline modeling approach contained in section 6.2.1 is critical to reducing the vulnerability of the protocol to the abuse of cherry-picking, in which a landowner develops a carbon project that

provides no actual reductions, but accrues offset credits based solely on the differences between the project site and the overall surrounding property. In this case, a landowner could designate a project area consisting of a large component of recently harvested forest stands in order to create a project with forest stocking levels near the legal baseline and below the "common practice" stocking level for the overall property. Because FPP 3.1 sets the baseline for the project at current stocking levels if the site is below "common practice" stocking levels, such a project would allow the project developer to count as greenhouse gas reductions the annual tree growth and regeneration that would have occurred on the project area under business-as-usual, thereby generating offset credits without making any changes at all to the management of the project site. The proposed addition of the first step in section 6.2.1 makes a strong attempt to close this loophole. Failure to adopt this amendment could lead to a substantial volume of non-additional offsets, fundamentally threatening the integrity of any offset program that utilizes this protocol.

4. Concerns regarding FIA averages and "common practice" stocking levels.

It is not clear whether the changes proposed to section 6.2.1 address the risk that "common practice" average stocking levels can be manipulated by a single landowner that dominates an Assessment Area. In such instances the protocol potentially rewards large timber operators that have historically done the most to degrade the forests. Such landowners may have reduced stocking levels on their properties, and thus would have lower average FIA stocking levels. In addition, this methodology potentially encourages large landowners to increase harvest operations to manipulate the FIA average in the assessment area, lowering the "common practice" baseline and increasing the offset value of projects without changing the management of the project site.

5. Addressing concerns regarding even-age management.

It is disappointing in this proposal does not address the tremendous concerns regarding even-age management and the conversion of native forest to plantations. We ask that the Reserve announce a timeline for addressing these issues as soon as possible.

Thank you very much for your consideration of these comments. Please do not hesitate to contact me if you have any questions.

Sincerely,

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