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September 19, 2016

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market Based Compliance Mechanisms

Dear Members of the California Air Resources Board,

Food & Water Watch (FWW), a non-profit organization with more than 170,000 supporters in California, hereby submits these comments on the State Board's Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market Based Compliance Mechanisms (hereafter "Proposed Amendments"). As developing nations and coastal communities face the immediate impacts of global climate change, world leaders who must protect constituents, resources and economies look to California to implement a replicable model for reducing and eliminating GHG emissions. The need for urgent and truly effective action and leadership increases every day.

As such, and for the reasons outlined below, FWW strongly urges the ARB to forego making minor adjustments to the current cap-and-trade program and, instead, focus its efforts on ways it can more readily implement the post-2020, direct source emissions reductions that are prioritized in recent legislative bills enacted this past session. We also note that those same bills preclude ARB from continuing to use cap-and-trade as a reduction mechanism, so there is no reason for ARB not to prepare for direct source control instead of engaging in this amendment process. We hereby incorporate herein our separate comments that were submitted in coalition with several environmental justice organizations that further detail the lack of ARB's legal authority to implement cap-and-trade approaches.

Cap-and-trade Will Not Help California Achieve its Reduction Goals

The Proposed Amendments largely continue the current system of GHG reductions which relies, in part, on a free market system of allowance auctions and offset programs designed to allow polluting entities flexibility to avoid meeting their own emissions limits. Any market-based approach to pollution control is rife with a significant lack of transparency, while being open to manipulation and fraud, and cannot result in the kind of real, additional and verifiable GHG reductions needed to save this planet from the worst impacts of climate change. In fact, a lack of transparency is already a hallmark of the state's cap-and-trade program as citizens are not even provided information about who is purchasing emissions allowances or in what amounts.

Previous Failed Experiments in Market-based Solutions in California

The current carbon cap-and-trade approach is not California's first foray into market-based systems for air pollution control. In the 1990s, while Congress enacted Title IV of the Clean Air Act, the city of Los Angeles was experimenting with its own air trading approaches to cut down

on several pollutants. Rule 1610 was approved in 1993. It allowed stationary sources of air pollution (typically LA's oil refineries) to purchase emissions credits from scrapyard operators who were removing older, highly polluting cars off the roads. The pollutants traded were volatile organic compounds, or VOCs.

The Rule 1610 program underscored many of the inherent problems with trading programs. Scrapyards were removing engines from old vehicles before demolishing them and selling both the engine and the emissions credits to increase profits. The oil refineries, all located in clusters among communities of color, continued to emit VOCs, along with many other co-pollutants such as benzene, a known carcinogen. These increases in stationary source emissions led to localized hotspots of increased impairment.

The early 1990s also saw Los Angeles introduce the Regional Clean Air Incentives Market, or RECLAIM, to try to reduce smog in the region. Pre-RECLAIM regulatory approaches showed dramatic reductions in many smog-related pollutants, including nitrogen oxides (NOx). These reductions stopped abruptly with the implementation of the new market system. In fact, for the first two years of RECLAIM, emissions actually increased, with only minor reductions (3 percent) in the years following. RECLAIM never did reach its goals. According to an April 2001 article in the Los Angeles Times, one month before the program was scrapped:

> Manufacturers, power plants and refineries have reduced emissions by a scant 16 percent — much less than was anticipated by this time. Businesses were given 10 years to eliminate about 13,000 tons of pollution annually, but as the program nears its end they have eliminated just 4,144 tons….

RECLAIM also shares a major problem with all trading programs: it de-motivated technological advances to pollution control, allowing industries to rely on credit purchasing instead of innovation to reduce emissions. The 10 years of RECLAIM were, in effect, a decade lost on making any significant inroads on LA's air problems.

The Acid Rain Program is not a Cap-and-Trade Success Story

Even where cap-and-trade systems have, arguably, resulted in decreases in emissions, they have proven to be less effective than direct source-by-source approaches. Title IV of the 1990 Clean Air Act Amendments, known as the Acid Rain Program, or ARP, has become the poster child for pollution trading proponents. It was enacted to address the main causes of acid rain — the emission of sulfur dioxide (SO_2) and nitrogen oxides (NO_x) from coal-fired power plants — through a system of buying and selling emission allowances. The goal of ARP was to reduce annual SO_2 emissions to about 9 million tons by 2010, down from the 15.7 million tons emitted in 1990.

While recent modeling indicates that this reduction target was reached by 2007, it remains far from clear whether the reductions were due to pollution trading or in spite of trading. For example, we know that the U.S. Environmental Protection Agency (EPA) now attributes at least 1 million tons of SO_2 reductions during ARP to factors unrelated to trading, namely the increased availability and switch to low-sulfur coal sources from the Powder River Basin in the early

1990s.

Prior to the enactment of Title IV, an assessment projection indicated that reductions in SO_2 as great as those achieved under a market-based ARP could be attained if older coal-fired power plants simply complied with the Clean Air Act's New Source Review (NSR) technology retrofitting requirements. But with the introduction of trading, those technological modifications fell by the wayside. As one 2005 report indicates, "Experience since 1990 has shown that most of these facilities have managed operations to avoid triggering NSR, resulting in facility life being extended longer and adoption of new control technologies being slower than many analysts predicted in 1990."

While we may never know the real impact of substituting trading mechanisms for technological upgrades on U.S. SO_2 emissions, results from Europe's contemporaneous acid rain approach indicate that we would have done much better sticking with regulatory approaches. A 2004 comparative study of the U.S. trading approach to SO_2 with the European Union's and Japan's regulatory "command and control" systems show a much greater reduction without trading. While the United States attained a 39 percent reduction in SO_2 during Phase I of the ARP program, the EU achieved a 78 percent reduction. Japan's emissions fell by 82 percent.

The ARP could only be considered a successful trading program if you ignore the reductions we would have achieved had we continued to force these industries to comply with the law and upgrade their reduction technology, without allowing trading.

<u>European Union Emissions Trading System: Another Failed Experiment in Market-Based Solutions</u>

While we still may not know what impact California's cap-and-trade initiatives have had on actual GHG reductions in the state, we do know that the largest existing carbon market in the world – the European Union's – has, like RECLAIM and Rule 1610, been an abject failure in many ways. With a total value of $176 billion, the biggest pollution marketplace experiment is the ongoing European Union Emissions Trading System (EU ETS). It was included as one of the mechanisms for meeting national emissions targets under the Kyoto Protocol to reduce climate-altering greenhouse gas emissions from industries around the globe

Thirty countries are part of this regional cap-and-trade system. The EU ETS only covers certain sectors, such as power generation and steel manufacturing, but not others, such as transport and agriculture. The EU ETS aims to reduce CO_2 emissions in these sectors 20 percent by 2020. Trading started in 2005. It has been fraught with significant problems and, at times, seems to be teetering on complete collapse. As was recently the case in the California allowance market, the price for carbon in the EU ETS has been incredibly volatile. It reached €30 ($47) in 2008, languished below €10 for most of 2012, hitting a low of €5.99 in April of that year. This kind of volatility undermines economic planning, while allowing some companies to reap a windfall with over-allocation.

The EU ETS has also attracted hackers and outright fraud, culminating in shutting down the spot market in 2011 after a group of Eastern European hackers cost EU governments up to €5 billion

in an attack. From stolen and fraudulent credits to stockpiling, plunging demands and miscalculated caps, the carbon cap-and-trade program has more problems associated with it than any traditional regulatory program could.

Offsets Do Not Achieve Real, Permanent or Additional Emission Reductions

Perhaps one of the most troubling aspects of the current market-based system is the use of offsets in lieu of source reductions. Regardless of whether the proposed offsets occur within or without the state cap-and-trade program, any kind of offset is a legitimate threat to achieving real, additional, or permanent emissions reductions. Offsets allow polluters to avoid the urgent need to stop polluting and instead allow them to pay to continue their harmful activities with impunity, while claiming that emissions have been reduced elsewhere. Moreover, the agenda behind offsets, as is clear here, too often places priority on cost containment, market efficiency and making it easier for polluters to comply, disregarding the true priority of reducing GHG emissions.

The issue of permanence presents the most egregious problem from offsets. The dictionary defines permanence as "the state or quality of lasting or remaining unchanged indefinitely." However, ARB's understanding of permanence is quite distorted: "Permanent means, in the context of offset credits, either that GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, that mechanisms are in place to replace any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years."

ARB's interpretation sends the contradictory message that offset protocols require permanence, but then allows for situations where permanence can be violated as long as there are backup mechanisms in place. For example, the Forest Buffer Account exists for when a forest used for offsets might burn down or be destroyed by another natural disaster, reversing the offsets generated. However, what's left unsaid is that using a buffer account like this allows the total amount of emissions released to increase — the reversed offsets release emissions, requiring more offsets to replace those reversed, ultimately increasing the aggregate number of credits used and subsequently increasing the overall amount of emissions allowed. It's not as simple as a one-for-one exchange.

Additionally, offsets conflict with the requirement for permanence when the life of the reductions is only 100 years, instead of achieving true permanence. Crediting periods also contradict the concept of permanence when they only go for 25 or 30 years at a time. This is, again, not permanent. It is also unclear what happens after the crediting periods end, or after the 100 years of "permanence" end. The companies that issue the offset credits might not exist in 25, 30 or 100 years, and these impermanent crediting periods bring all of the offsets issued into question. The entire structure presents a significant risk of large-scale reversal in the future, undoing whatever emission reductions might happen and creating no real progress on the very critical issue of GHG reductions.

Another problem arises in the methodology for measuring the amounts of carbon dioxide (CO_2) stored in forests and as well as the methods for calculating emissions reductions from the

proposed rice cultivation offsets. Although both methodologies are problematic, they share a significant issue in that they use models and estimates to arrive at the amount of CO_2 stored in a forest or the amount of methane emissions prevented from different rice cultivation practices. From these estimates, offsets are then sold for exact amounts of avoided emissions. A modeled estimate does not equal an exact amount of emissions. It doesn't add up.

Additionality issues also render California's offset program invalid. State regulations hold that, "A registry offset credit must represent a GHG emission reduction or GHG removal enhancement that is real, additional, quantifiable, permanent, verifiable, and enforceable" (Health and Safety Code §38562(d)(1) and (2)). Yet time and again, ARB approves offsets that do not meet this additionality requirement.

For example, Brubaker Farm in Pennsylvania built a manure digester in 2011, using taxpayer funding, to provide electricity for the farming operation. The owner of the farm is on record as saying he originally built the digester not for credits, but for electricity. Yet, in 2015 ARB retroactively certified the Brubaker digester as a GHG offset generator, and California industries can now take advantage of this facility to continue their own emissions even though the digester was already in place, and operating.

Likewise, ARB recently approved the 704-acre Pungo River Forest Conservation Project in North Carolina as a source of GHG offsets even though this stand of forest was put into permanent conservation easement in 2003. Seeking out already existing projects across the country to generate GHG reductions and subsequent offset credits for use in the state of California means that there are no additional GHG reductions taking place through the state's offset program.

The lack of accountability in offset approaches is not restricted to California. A recent study of a European Union offset program found that 80% of credits were unverifiable. This means that polluters were able to buy offset credits to pollute more from sources that may or may not have actually reduced emissions.

Cap-and-trade Undermines the Clean Air Act

The offset approach is not the only problem. Cap-and-trade is a regulatory framework that seeks to eliminate the most important tenets of the Clean Air Act, which is that companies do not have an inherent right to pollute. Under cap-and-trade policies, polluters are being given a right to threaten public health and the environment, as long as they pay for it. These schemes essentially create loopholes that allow polluters to continue dumping and discharging rather than holding them accountable for pollution.

Trading creates a mechanism where profits determine who is able to pollute and can actually lead to an overall increase in pollution along with regional pollution hot spots, as larger and well-financed polluters will often opt to purchase credits rather than run pollution control equipment. This happened with the Los Angeles air pollution trading programs under the Rule 1610 and RECLAIM programs in which communities of color near the City's refinery district suffered

from increased air pollution when these facilities purchased emissions credits instead of installing reduction technologies.

While proponents of cap-and-trade and offsets tout the regulatory flexibility benefits of these policies, in reality these policies allow polluting industries to put profit above the interests of public health and the environment. We need to strengthen protections under the Clean Air Act that have worked for decades to help hold polluters accountable, rather than rolling back some of the most important public health laws for decades.

The threats posed by climate change to our public health, environmental health, communities and livelihoods are permanent and real, and so must our efforts to stop these threats be permanent and real — cap-and-trade and offsets cannot accomplish this. The fact that they require loopholes, distortions and exceptions to even "work" shows that these approaches are not a solution to our climate problem, but simply exist as conveniences for industries that wish to avoid taking the steps necessary to limit their own pollution emissions.

CARB is Precluded from Continuing its Cap-and-Trade Approach after 2020

The State Board lacks authority to act on these proposed regulations. Staff proposes amendments to various provisions of the Cap and Trade regulations to extend the program after the year 2020. *See, e.g.* ISOR at 149 (describing changes to section 95841 to establish allowance budgets for the years 2021 to 2050); ISOR at 299 (describing Appendix C to set dates for auctions and reporting for the years 2021 to 2050). A fundamental principle of administrative law dictates that agencies only have those powers delegated by the Legislature. The State Board's authority to implement the Cap and Trade program expires on December 31, 2020 and the Board has no authority to adopt regulations to extend the program beyond that date. Health & Safety Code §§ 38562(c), 38570.

ARB staff have claimed that AB 32 authorizes these regulations because of language in Part 3 of AB 32 related to the statewide greenhouse gas limit (the level of emissions in 1990). "It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020." Health & Safety Code § 38551(b). Grasping on to the words "continue reductions," the staff believe they can extend Cap and Trade to 2030 and then all the way to 2050. This provision, however, must be understood in the context of the statutory scheme as a whole. The very next subsection of section 38551 directs the State Board to make recommendations to the Governor and the Legislature on how to continue reductions, and does not give the State Board the authority to take those actions *sua sponte*. "The state board shall make recommendations to the Governor and the Legislature on *how* to continue reductions of greenhouse gas emissions beyond 2020." Health & Safety Code § 38551(c) (emphasis added).

Nor has the Legislature acted to extend the State Board's authority. During the 2015 legislative session, the version of Assembly Bill 1288 (Atkins) containing an extension of the State Board's authority to implement Cap and Trade beyond December 31, 2020 did not become law. During the 2016 legislative session, Senate Bill 32 became law and requires the State Board to achieve a 40 percent reduction in greenhouse gas emissions below 1990 levels by 2030. Stats. 2016, ch. __, § 2, p. __ (codified as Health & Safety Code § 38566). No provision of Senate

Bill 32 amended section 38562(c) or otherwise authorized the State Board to implement Cap and Trade after the year 2020. Accordingly, the State Board lacks the authority to adopt the Proposed Amendments.

Conclusion

All GHG emitting industries and polluters will need to do their share in order to achieve needed reductions to save this planet. As ARB moves into the post-2020 direct source approach and rightfully abandons cap-and-trade we encourage the agency more aggressively regulate the highly under-regulated agricultural industry sector, as well as all other sectors of GHG emissions, as it moves to implement climate change goals and remedies in the coming years.

Sincerely,

Rebecca Claassen
Senior Campaigner