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March 8, 2013

Mary Nichols, Chair
California Air Resources Board
1001 I Street, PO Box 2815
Sacramento, CA 95812

Re: Support for Santa Barbara County Air Pollution Control District Proposal to Use Cap-and-Trade Auction Funds for a Vessel Speed Reduction Incentive Program

Dear Chair Nichols, and Members of the California Air Resources Board:

Maersk Line is pleased to express support for the proposal by the Santa Barbara County Air Pollution Control District ("the District") to establish a Vessel Speed Reduction ("VSR") incentive program using cap-and-trade auction funds.

Maersk Line is the world's largest container shipping line. We are committed to reducing our environmental footprint, and since 2007 have reduced our CO₂ emissions by 25% on a per container per kilometer basis. In 2006 Maersk Line pioneered the use of cleaner fuels in California ports to reduce criteria air emissions, and we still use fuels significantly cleaner than required by the OGV Fuel Rule. We have also implemented similar programs in Hong Kong, Singapore and Gothenburg Sweden.

Vessel speeds have very significant impacts on vessel fuel consumption and the resulting emissions. Since 2008, Maersk Line has led the move to "slow steaming" globally in order to reduce fuel consumption and the resulting CO₂ and SO_x/NO_x/PM emissions. We have been participating in the successful Vessel Speed Reduction incentive programs at the Ports of LA and Long Beach, and would anticipate participating in such a program (depending on final requirements).

More details on our environmental performance are covered in our annual sustainability progress reports which can be downloaded at www.maerskline.com. Our 2013 progress update will be published on March 18, and the AP Moller-Maersk Sustainability annual report is available at www.maersk.com.

I first met with the District and other stakeholders in Santa Barbara in February 2012 to share information from the shipping industry perspective and learn more about their concerns on greenhouse gas emissions, criteria pollutants and protecting whales. Since then I have spoken with District staff several times to assist them in development of a workable program. We will continue to work with the District to provide insights and input as this program develops.

I will be happy to discuss vessel operations or answer other questions. Please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "B. Lee Kindberg". The signature is written in a cursive, flowing style.

B. Lee Kindberg, Ph.D.
Director, Environment and Sustainability
MAERSK LINE/Maersk Agency USA
Lee.Kindberg@maersk.com
tel: (704) 571-2693



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
National Marine Sanctuary Program
West Coast Region
99 Pacific Street, Bldg 200, Suite K
Monterey, CA 93940

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802-4213

June 21, 2012

Mary D. Nichols, Chair
California Air Resources Board
1001 I Street, PO Box 2815
Sacramento, CA 95812

Re: Use of Cap-and-Trade Auction Funds to Incentivize Ships to Reduce Speed

Dear Chair Nichols and Board Members,

We understand that the State of California's Air Resources Board (CARB) will be developing an investment plan for the auction proceeds from the cap-and-trade program to meet the goals of Assembly Bill 32 to improve public health, develop a clean energy economy and provide additional environmental and public health benefits. The National Oceanic and Atmospheric Administration's (NOAA) Office of National Marine Sanctuaries, West Coast Region and National Marine Fisheries Service, Southwest Region support the use of these proceeds to create an incentive program that rewards large ocean-going ships for slowing down while transiting off California's coast. We believe this use of the funds could achieve multiple environmental benefits important to both of our agencies.

Research has shown that large ocean-going vessels traveling at slow speeds substantially reduce their greenhouse gas emissions and nitrogen oxide and sulfur dioxide pollution. Encouraging ships to travel at slower than normal speeds can also reduce the anthropogenic effects on marine mammals by reducing the risk of lethal strikes and noise pollution in the marine environment. Identifying and minimizing impacts to endangered blue, fin and humpback whales is a priority for NOAA. We believe that creating an incentive program to encourage vessels to travel at slow speeds could be a benefit to the people and the whales offshore of California.

To be successful, the development of an incentive based slow speed initiative will require collaboration with the shipping industry and other partners. We have been in discussion with the Santa Barbara Air Pollution Control District regarding the viability of this idea and look forward to working with them and CARB to develop the idea further. We have reached out to a number of partners, including the Marine Exchanges of California, the Pacific Merchant Shipping Association, and the Sanctuary Advisory Council of Channel Islands National Marine

Sanctuaryⁱ, and received general support for what we all believe is an idea worthy of further consideration (see attached letter of support).

Thank you for your consideration of using cap and trade auction proceeds to incentivize ocean-going vessels to reduce speed and greenhouse gas emissions, and to protect endangered whales. Please contact Sean Hastings, Channel Islands National Marine Sanctuary, sean.hastings@noaa.gov or (805) 884-1472 and/or Elizabeth Petras, National Marine Fisheries Services, Southwest Region, Elizabeth.petras@noaa.gov or (562)980-3238 if you have any questions.

Sincerely,



for Rodney McInnis
Regional Administrator
Southwest Regional Office
National Marine Fisheries Service



William Douros
Regional Director
West Coast Region
Office of National Marine Sanctuaries

cc:

Channel Islands Sanctuary Advisory Council
Louis D. Van Mullem Jr., Air Pollution Control Officer, Santa Barbara Air Pollution Control District

Enclosure:

Channel Islands Sanctuary Advisory Council Support Letter

ⁱ In 2009, a report endorsed by the Sanctuary Advisory Council of Channel Islands National Marine Sanctuary recommended that incentive-based approaches to slow ships down be explored, specifically, to reduce ship strike risks on endangered whales. See: "Reducing the Threat of Ship Strikes on Large Cetaceans in the Santa Barbara Channel Region and Channel Islands National Marine Sanctuary: Recommendations and Case Studies" available online at: <http://channelislands.noaa.gov/sac/pdf/sscs10-2-09.pdf>.

Sanctuary Advisory Council

CHANNEL ISLANDS NATIONAL MARINE SANCTUARY

Member/Alternate

Tourism

Andrea Mills / Capt. Mat Curto

Business

Capt. Richard McKenna / Michael Gould

Non-Consumptive Recreation

Debra Herring / Nicole Peters

Commercial Fishing

Bruce Steele / Stephanie Mutz

Recreational Fishing

Capt. David Bacon / Merit McCrea

Education

Maria Petueli / Amanda Hendrickson

Research

Dr. Robert Warner / Dr. Mark Steele

Conservation

Linda Krop / Greg Helms

Public At-Large 1

Phyllis Grifman / Victor Cox

Public At-Large 2

Eric Kett / <vacant>

Chumash Community

Luhui Isha Waiya / Vennise Miller Forte

National Marine Fisheries Service

Elizabeth Petras / Stephanie Koes

National Park Service

Russell Galipeau / David Ashe

U.S. Coast Guard

CDR Christina Davidson / LCDR Elisa Garrity

Bureau of Ocean Energy Management

Donna Schroeder / Dr. Ann Bull

U.S. Department of Defense

John Ugoratz / Walter Schobel

California Department of Fish and Game

Marija Vojkovich / Kristine Barsky

California Resources Agency

<vacant> / Amy Vierra

California Coastal Commission

Dr. Jonna Engel / Steve Hudson

County of Santa Barbara

Dianne Black / Susan Curtis

County of Ventura

Lyn Krieger / <vacant>

Channel Islands Nat'l Marine Sanctuary

Chris Mobley [non-voting]

Monterey Bay Nat'l Marine Sanctuary

Paul Michel / Karen Grimmer [non-voting]

Gulf of the Farallones Nat'l Marine Sanctuary

Maria Brown / Brian Johnson [non-voting]

Chair: Eric Kett

Vice Chair: Bruce Steele

Secretary: Phyllis Grifman

June 13, 2012

Mary D. Nichols, Chair
California Air Resources Board
1001 I Street, PO Box 2815
Sacramento, CA 95812

Re: Investment of Cap-and-Trade Auction Proceeds to Incentivize Large Ocean-Going Vessels to Reduce Speed

Dear Chair Nichols:

As chair of the Channel Islands National Marine Sanctuary Advisory Council, I am writing with regard to the development of an investment plan for the use of cap-and-trade auction proceeds to help reduce greenhouse gases that contribute to climate change. Specifically, the advisory council supports the use of auction proceeds to incentivize large ocean-going vessels to reduce speed.

The advisory council provides advice on management, use and protection of sanctuary waters. The council is comprised of 42 individuals representing the general public, tourism, business, recreational fishing, commercial fishing, non-consumptive recreation, education, research, conservation and Chumash community interests, as well as local, State and Federal government agencies.

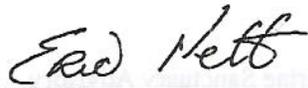
At our May 2012 meeting, sanctuary and Santa Barbara Air Pollution Control District staff informed us of the California Air Resources Board (CARB) process to develop the investment plan. Staff further suggested that by allocating some of the auction proceeds to incentivize large ocean-going vessels to reduce their speed off the California coastline, there would be substantial reductions in greenhouse gas emissions and other environmental benefits from slower moving ships.

In a 2009 sanctuary report endorsed by the advisory council¹ we recommended that incentive-based approaches to slow ships down be explored, specifically, to reduce ship strike risks on endangered whales. We are familiar with the successful Vessel Speed Reduction Incentive Program at the ports of Long Beach and Los Angeles that offers monetary-based incentives to slow ships approaching and departing these ports, yielding significant air quality benefits.

Slowing large ocean-going vessels offers a substantial reduction of greenhouse gas emissions as well as reducing nitrogen oxide and sulfur dioxide pollution. Slower ships also provide enhanced protection of marine mammals by reducing noise and ship strike impacts on endangered blue, fin and humpback whales. Therefore, the sanctuary advisory council supports allocating auction proceeds to incentivize large ocean-going vessels to reduce their speed off the California coastline.

A unique and compelling opportunity now arises to develop an incentive-based program focused on reducing ship speeds to address the state's goals under the cap-and-trade program, and help protect endangered whales off our coast. I hope the support of our sanctuary advisory council will be given due consideration as part of the California Air Resources Board's public consultation process.

Sincerely,



Eric Kett, Chair
Sanctuary Advisory Councilⁱⁱ

cc: William J. Douros, Acting Deputy Director, NOAA Office of National Marine Sanctuaries

Chris Mobley, Superintendent, Channel Islands National Marine Sanctuary

Brian Shafritz, Manager, Technology and Environmental Assessment Division, Santa Barbara County Air Pollution Control District

enclosure: Channel Islands National Marine Sanctuary Advisory Council voting results, May 18, 2012.

ⁱ "Reducing the Threat of Ship Strikes on Large Cetaceans in the Santa Barbara Channel Region and Channel Islands National Marine Sanctuary: Recommendations and Case Studies." Available online at: <http://channelislands.noaa.gov/sac/pdf/sscs10-2-09.pdf>.

ⁱⁱ *The council is an advisory body to the sanctuary superintendent. The opinions and findings of this letter do not necessarily reflect the position of the sanctuary and the National Oceanic and Atmospheric Administration.*

Voting Results: May 18, 2012 – Channel Islands National Marine Sanctuary Advisory Council

Voting results on a motion approving the Sanctuary Advisory Council's Executive Committee to prepare a letter to the California Air Resources Board (CARB) supporting CARB's consideration of allocating some of the cap-and-trade auction proceeds to an incentive program that would be designed to encourage reduced speeds from large ships; including a reference to a specific recommendation concerning exploring incentive programs within a ship strike report previously endorsed by the sanctuary advisory council; and supporting the council's views being mentioned at a May 24th CARB public meeting on the matter. May 18, 2012, Santa Barbara, California.

<i>Name</i>	<i>Council Seat - position</i>	<i>Vote</i>
Capt. Mat Curto	Tourism – alternate	Yes
Debra Herring	Non-Consumptive Recreation – member	Yes
Capt. Richard McKenna	Business – member	Yes
Linda Krop	Conservation – member	Yes
Bruce Steele [Vice Chair]	Commercial Fishing – member	Yes
Capt. David Bacon	Recreational Fishing – member	Yes
Maria Petueli	Education – member	Yes
Dr. Mark Steele	Research – alternate	Yes
Phyllis Grifman [Secretary]	Public At Large #1 – member	Yes
Eric Kett [Chair]	Public At Large #2 – member	Yes
Luhui Isha Waiya	Chumash Community – member	Yes
Elizabeth Petras	NOAA Fisheries – member	Yes
David Ashe	National Park Service – alternate	Yes
CDR Christina Davidson	US Coast Guard – member	Yes
Donna Schroeder	Bureau of Ocean Energy Management – member	ABSENT
Dr. Ann Bull	Bureau of Ocean Energy Management – alternate	
John Ugoretz	Dept. of Defense – member	No
Marija Vojkovich	California Department of Fish & Game – member	Yes
<vacant>	California Natural Resources Agency – member	ABSENT
Amy Vierra	California Natural Resources Agency – alternate	
Dr. Jonna Engel	California Coastal Commission – member	Yes
Susan Curtis	Santa Barbara County – alternate	Yes
Lyn Krieger	Ventura County – member	ABSENT
<vacant>	Ventura County – alternate	

Yes –17 No –1 Abstain –0



March 8, 2013

Mary Nichols, Chair
California Air Resources Board
1001 Street, Po Box 2815
Sacramento, CA 95812

**RE: Use of Cap-and-Trade Auction Funds to Reduce GHG Emissions
from Ships: Vessel Speed Reduction Incentive Program**

Submitted electronically via the [CARB Comment Submittal Form](#)

Dear Ms. Nichols and Board Members:

The Environmental Defense Center (EDC) supports the proposal by the Santa Barbara County Air Pollution Control District (SBCAPCD) to use some of the Cap-and-Trade auction revenue to develop an incentive program that will voluntarily reduce the speeds of large marine ships traveling along the California coast. This proposal, known as the *Vessel Speed Reduction Incentive (VSR) Initiative*, fulfills multiple objectives of AB 32 (Global Warming Solutions Act of 2006), AB 1532 and SB 535 (Greenhouse Gas Reduction Fund) while also meeting California's clean-transportation goals and sustainable freight strategies. By supporting this initiative the California Air Resources Board (CARB) would be investing in low-carbon freight transportation, a priority identified in the Cap-and-Trade Auction Proceeds Investment Plan Draft Concept Paper (Investment Plan).¹

EDC is a non-profit, public interest law firm and environmental organization which represents environmental and other community groups within Santa Barbara, Ventura, and San Luis Obispo Counties. Our mission is to protect and enhance the local environment through education, advocacy, and legal action. We are pleased to provide input on the use of Cap-and-Trade auction proceeds to reduce greenhouse gases (GHG) contributing to climate change and to register our support for the VSR Initiative.

¹ California Air Resources Board and California Environmental Protection Agency 2013. Cap-and-Trade-Auction Proceeds Investment Plan. Draft Concept Paper Accessed at:
http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/workshops/concept_paper.pdf

It is rare when a single policy mechanism can have so many positive benefits. Incentivizing marine vessels greater than 300 gross tons to voluntarily travel at speeds 12 knots/hour or slower would reduce GHG emissions, reduce air pollution along the coast and in disadvantaged communities, protect whales from collisions with vessel and noise pollution, and provide other benefits associated with reduced speed.

The SBCAPCD letter of support is attached as an appendix and provides additional details including a Fact Sheet and Implementation Plan on the VSR Initiative program. The following EDC letter highlights the benefits from this VSR program including:

- 1. Significant GHG Reductions**
- 2. Co-Benefit: Significant Air Pollutant Reductions Complimenting Existing Air Quality Efforts**
- 3. Co-Benefit: Directing Investments to Disadvantage Communities**
- 4. Co-Benefit: Improving Whale Protection**
- 5. Supporting the State's Economy and Maximizing Economic Benefits**
- 6. Creating Opportunities for Collaboration Between Businesses, Public Agencies, Non-profits and Others**
- 7. Measurable and Verifiable Reductions**

Each of these benefits is described in more detail below.

1. Significant GHG Reductions

Large ships traveling along the California Coast produce significant air emissions. For Santa Barbara County alone the marine shipping sector contributes approximately 25% to the total Statewide GHG emissions inventory. Research shows that GHG emissions from large marine shipping vessels are directly proportional to fuel consumption, and the amount of fuel ships consume is directly and exponentially related to vessel speed. Studies have demonstrated that the most cost effective, feasible method to reduce emissions from ships is to slow them down.² The International Maritime Organization (IMO) reports that a 10% reduction in speed would result in a 23.3% decrease in GHG emissions.³ At low speeds, ships are one order of magnitude more efficient than land transport and two orders more efficient than air transport.⁴ However,

² Friends of the Earth International. 2007. Prevention of Air Pollution from Ships: Recent Findings on Global Warming Justifying the Need for Speedy Reductions of Greenhouse Gas Emissions from Shipping. Submitted to the Marine Environment Protection Committee, IMO (May 4, 2007). (pg 6)

³ International Maritime Organization. 2000. Study of Greenhouse Gas Emissions from Ships: Final Report to the International Maritime Organization. Issue no. 2-31 (March 2000). Available at: http://unfccc.int/files/methods_and_science/emissions_from_intl_transport/application/pdf/imoghmain.pdf (accessed June 19, 2012). (at pg 17, Table 1-5)

⁴ Isensee and Bertram 2004. Quantifying external costs of emissions due to ship operation. Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering of the Maritime Environment 218: 41.

as ship speeds increase much of these efficiencies are lost and very fast ships have been found to have similar energy demands to airplanes.⁵

Estimates by the SBCAPCD have shown that reducing ship speeds to 12 knots/hour along the entire California coast would reduce GHGs by 50%, resulting in 2.5 million tonnes/year of GHG reduction.⁶ This is equivalent to removing over 480,000 vehicles from the roads or planting over 60 million trees.⁷ Thus, reducing ship speeds could substantially contribute to California's GHG emission reduction goals.

2. Co-Benefit: Significant Air Pollutant Reductions Complimenting Existing Air Quality Efforts

In addition to significantly contributing to GHG emissions, ship emissions contain toxic air pollution that puts people at risk of cancer, asthma and premature death. Health risk pollutants from ships include nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulate matter (PM). Locally in Santa Barbara County, marine shipping contributes over 54% of the total daily NO_x emissions. This is more than all other sources combined, including: stationary sources, on-road motor vehicles, other mobile sources, and area-wide sources. The SBCAPCD has estimated substantial emissions reductions over 50% for NO_x, SO_x, and PM pollutants if ships travel at 12 knots/hour within the Santa Barbara Channel. Extending the VSR Initiative along the California coast would result in even greater air quality improvements. An incentive based program to slow down ships would lead to measurable improvements to air quality and the long-term co-benefit of improving public health. This compliments clean air efforts at coastal Air Pollution Control Districts and aligns with clean transpiration and sustainable freight strategies.

3. Co-Benefit: Directing Investments to Disadvantage Communities

Emissions from ships in the Central and South Coast waters are typically transported downwind by prevailing winds and can impact disadvantaged communities⁸ including: Oxnard, Port Hueneme, Long Beach, and Chula Vista. Clean air benefits from slowing ships down will reduce onshore impacts along the coast. The VSR Incentive program helps meet requirements under SB 535 (Greenhouse Gas Reduction Fund) by directing funds to a program that reduces GHGs and has a direct health benefit for some of the most impacted and disadvantaged communities in California.

⁵ Oceana (July 2008) Shipping Impacts on Climate: A Source with Solutions. By Ellycia Harrould-Kolieb. Page 9.

http://oceana.org/sites/default/files/o/fileadmin/oceana/uploads/Climate_Change/Oceana_Shipping_Report.pdf

⁶ Santa Barbara Air Pollution Control District Letter, Submitted March 7, 2013. Re: Use of Cap-and-Trade Auction Funds for a Ship Speed Reduction Incentive Program along CA Coast to Reduce GHG Emissions.

⁷ EPAs Greenhouse Gas Equivalencies Calculator <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>

⁸ Disadvantaged communities were identified using CalEnvironScreen more info can be found at <http://oehha.ca.gov/ej/index.html>

4. Co-Benefit: Improving Whale Protection

For more than five years the EDC has been actively working to pursue proactive mechanisms to reduce the incidence of ship collisions with large whales.⁹ The urgent need to address ship strikes was tragically illustrated in 2007 when four blue whales were stuck and killed by large cargo ships within the Santa Barbara Channel during a three-week period. In the last four months, two fin whales have been struck and killed in Southern California. EDC has been seeking a comprehensive approach to this issue including advocating for the reduction in ship speeds (among other measures).

California hosts some of the busiest ports in the world and large commercial vessels regularly speed through our waters on their way to port. California waters also host some of the highest densities of marine wildlife including a wide variety of whales such as: blue, humpback, gray, fin, sperm, and killer whales. The Santa Barbara Channel is home to the largest seasonal population of endangered blue whales on the planet, while also hosting one of the busiest shipping corridors in the country. Scientific research has shown that there is a direct correlation between vessel speed and ship strikes resulting in whale mortality. Vessels traveling at 14 knots/hour or faster resulted in 89% of lethal or severe injuries to whales.¹⁰ This research also shows that none of the whales hit at a speed of 10 knots/hour or less were killed. Studies show that when vessel speeds fall below 15 knots/hour, there is a substantial decrease in the probability that a vessel strike to a large whale will prove lethal.¹¹

In addition to collisions, shipping also results in ocean noise pollution that may have a range of impacts on marine life and whale species. There is increasing awareness that the potential for chronic exposure from shipping noise can have harmful impacts on marine ecosystems and wildlife. Noise-related stress can lead to disruptions in feeding, mating, migration, predator avoidance, navigation, or may trigger an abandonment of habitat.¹² Speed restrictions have been identified as a possible mitigation measure to reduce the potential impacts from shipping noise.¹³ An incentive based program reducing ship speeds would accomplish both a reduction in the likelihood and lethality of ship strikes and reduction in underwater noise pollution.

⁹ See "Whale of an Opportunity: Coast Guard Study of Los Angeles/Long Beach Port Access Routes Holds Great Potential for Reducing Ship Strikes within Santa Barbara Channel," 37 *Ecology Law Currents* 58 <http://elq.typepad.com/currents/2010/08/currents37-07-segee-2010-0816.html> (2010).

¹⁰ Laist, D.W., Knowlton, A.R., Mead, J.G., Collet, A.S. and Podesta, M. 2001. Collisions between ships and whales. *Marine Mammal Science* 17(1): 35-75.

¹¹ Vanderlaan, A.S.M. and Taggart, C.T. 2007. Vessel Collisions with Whales: The probability of lethal injury based on vessel speed. *Marine Mammal Science* 23(1): 144-156.

¹² Popper, A.N. 2003. Effects of anthropogenic sounds on fishes. *Fisheries* 28(10): 24-3

¹³ Merchant N.D., Witt M.J., Blondel P., Godley B.J., Smith G.H., Assessing sound exposure from shipping in coastal waters using a single hydrophone and Automatic Identification System (AIS) data. *Marine Pollution Bulletin* (2012), <http://dx.doi.org/10.1016/j.marpolbul.2012.05.004>

Managers,¹⁴ scientists,¹⁵ and National Marine Sanctuary Advisory Councils^{16,17} have all supported policies that support slowing ships down to better protect whales and other marine life. The VSR Initiative provides the clear co-benefit of protecting important natural resources off our coast like endangered whales.

5. Supporting the State's Economy and Maximizing Economic Benefits

The VSR Initiative would assist with offsetting the cost to the shipping industry for reducing ship speeds. Initial upfront cost to the industry could include (but are not limited to): scheduling adjustments, additional ships, and/or additional crew.¹⁸ However, reducing vessel speed reduces the emissions of pollutants per ton of cargo carried, which has the benefit of improving fuel efficiency (and cost) for ships.

By slowing ships down, the industry will experience annual fuel cost savings. The industry has increasingly recognized the economic value of reducing vessel speed.¹⁹ In order to lower costs and environmental impacts, some within the shipping industry have voluntarily implemented "super slow steaming," the practice of operating a ship at a greatly reduced speed in order to burn less bunker fuel. In 2007, Maersk, a major international shipping company, initiated a comprehensive study of 110 vessels that proved, contrary to the traditional policy of running vessels with no less than a 40-60% engine load (a measure of how hard the engine is working), that its container ships can run safely with as little as a 10% engine load. In other words, Maersk found that its vessels could travel safely and efficiently at lower speeds. This makes it possible for vessels to travel at half-speed while realizing a 10-30% savings in fuel costs. By implementing slow steaming, Maersk experienced significant overall saving even after the costs of adding another container ship to their fleet was taken into account.²⁰ The economic benefits of a VSR include offsetting up-front costs to the industry and fuel cost savings. These savings could be passed through to the global, state, and/or local economy.

¹⁴ National Marine Fisheries Service (NMFS). 2008. FEIS to Implement Operational Measures to Reduce Ship Strikes to North Atlantic Right Whales (August 2008).

¹⁵ Berman-Kowalewski, Michelle et al. 2010. Association Between Blue Whale (*Balaenoptera musculus*) Mortality and Ship Strikes Along the California Coast. *Aquatic Mammals* 2010, 36(1), 59-66, DOI 10.1578/AM.36.1.2010.59.

¹⁶ Abramson, L., Polefka, S., Hastings, S., Bor, K. 2009. Reducing the Threat of Ship Strikes on Large Cetaceans in the Santa Barbara Channel Region and Channel Islands National Marine Sanctuary. Prepared and adopted by the Channel Islands National Marine Sanctuary Advisory Council. September 17, 2009. 73 pgs. Online at <http://channelislands.noaa.gov/sac/pdf/sscs10-2-09.pdf>.

¹⁷ Abramson L. 2012. Vessel Strikes and Acoustic Impacts- Report of a Joint Working Group of the Gulf of the Farallones and Cordell Banks National Marine Sanctuary Advisory Councils.

¹⁸ SBCAPCD Marine Shipping Solutions Group Meeting Presentation. February, 2012. Lee Kindberg, Director of Environment and Sustainability Maersk Shipping Company.

¹⁹ Rosenthal, E. Feb. 17, 2010. "Slow Trip Across Sea Aids Profit and Environment." *New York Times*.

Vidal, John. July 25, 2010. Modern cargo ships show to the speed of the sailing clippers. *The Guardian*.

White, Ronald D.. July 31, 2010. Ocean shipping lines cut speed to save fuel costs. *Los Angeles Times*.

²⁰ See footnote 17 above

6. Creating Opportunities for Collaboration Between Businesses, Public Agencies, Non-profits and Others

The VSR Initiative is a unique program that finds common ground and pursues diverse partnership. Staff at the SBCAPCD, Channel Islands National Marine Sanctuary (CINMS), and EDC has been working in partnership to develop and implement the VSR Initiative.

This proposal also has the support and backing of a number of stakeholders, including members of a Marine Shipping Solutions Group that has participation from federal agencies (National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS), CINMS, U.S. Coast Guard, and CINMS Advisory Council), NGO groups (EDC, Ocean Conservancy (OC), and Community Environmental Council (CEC)), leading scientists, and local elected leaders. We have also made efforts to reach out to the Ports and the shipping industry which are aware and supportive of the VSR Initiative concept.

Additionally, the VSR Initiative would build upon the existing successful Ports of Los Angeles and Long Beach VSR program. The Ports program provides incentives for ships to remain at or below a speed of 12 knots/hour up to 40 nautical miles from the Ports. Participation rates are over 90%, and have resulted in significant reductions in ship emissions.²¹ In 2007, the Ports estimated that the vessel speed reduction program resulted in the following reductions: 1,345 tons of nitrogen oxides, 832 tons of sulfur oxides, 112 tons of particulate matter, and 55,502 tons of carbon dioxide.²² This data only further illustrates the point that reducing vessel speed has many co-benefits beyond GHG reductions. Thus, this initiative supports the Ports' current clean-air goals while extending the benefits further along the California coast.

7. Measurable and Verifiable Reductions

Currently there is an existing network of monitors along the coast of California known as the Automated Identification System (AIS) that is used to track ship position and speed. Ships over 300 gross tons are required to carry AIS, so data on vessel speeds can be obtained. The existing state wide AIS system can serve as a platform for data collection on a daily basis to track compliance with the incentive program. Furthermore, ship fuel consumption data could also be reviewed to verify AIS data and track GHG and other emission reductions.

Locally, the CINMS monitors ship traffic around the Channel Islands and Santa Barbara Channel using the AIS system to track ships' compliance and behavior with a

²¹ Port of Long Beach.2008. Green Flag Incentive Program Monthly Report, (1/1/10 to 12/31/10), Operator Compliance at 20 nm. Available www.polb.com/civica/filebank/blobload.asp?BlobID=8182 (accessed June 19, 2012). (page 6)

²² See <http://www.cleanairactionplan.org/strategies/vessels/vsr.asp>

Ms. Nichols and Board Members
Re: Use of Cap-and-Trade Auction Funds to Reduce GHG Emissions from Ships
March 8, 2013

voluntary seasonal speed limit of 10-knots/hour. Unfortunately, compliance is very low; hence the potential role for an effective incentive based program.

Conclusion

The Cap-and-Trade auction revenue stream provides a unique opportunity to develop a VSR incentive program to reduce the speed of large marine cargo ships along the California coast. It is rare when one policy can address multiple environmental concerns. The VSR Initiative fulfills multiple objectives identified in the Implementation Plan, AB 32, AB 1532 and SB 535. Slowing down large marine ships significantly reduces GHG emissions but also has the co-benefits of reducing air pollutants, improving air quality for human health specifically in disadvantage communities, and providing better protection for marine wildlife like blue, gray, humpback, and other whales.

A diverse partnership of stakeholders has been established, and there is a concerted effort to reach out to all affected parties, including the shipping industry, ports, and decision makers. We know that if this program is funded there will be significant resources and effort to ensure its success. Thank you for your consideration of these comments. Please do not hesitate to contact me at (805) 963-1622 should you have further questions or concerns.

Sincerely,



Kristi Birney
Marine Conservation Analyst

Ms. Nichols and Board Members
Re: Use of Cap-and-Trade Auction Funds to Reduce GHG Emissions from Ships
March 8, 2013

Appendix- Fact Sheet & Implementation Plan