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Board Agenda Item

TO: Air Pollution Control District Board

FROM: Aeron Arlin Genet, Air Pollution Control Officer

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SUBJECT: Results from 2017 Vessel Speed Reduction Incentive Program

RECOMMENDATION:

Receive and file an update on the 2017 Vessel Speed Reduction incentive program.

DISCUSSION:

Large ships transiting off the coast of Santa Barbara County are a major source of air pollution. Ships off our coast are currently using lower-sulfur fuel, which reduces emissions of sulfur dioxide, particulate, and air toxics. However, use of this fuel does not significantly reduce emissions of nitrogen oxides (NO_x). NO_x is involved in the formation of ozone, a principal component of smog. Reducing NO_x emissions is a priority for the District so that Santa Barbara County can attain and maintain attainment of state and federal ozone standards. Over the long term, international rules requiring cleaner engines on new ships will bring about NO_x reductions from the marine shipping sector. However, reductions may take even longer to achieve from these rules than was originally predicted.

Reducing ship speeds cuts emissions of multiple pollutants, including NO_x, and simultaneously reduces the risk of fatal ship strikes on whales. In recent years, the District and partners have implemented voluntary Vessel Speed Reduction (VSR) incentive programs for immediate air quality and whale protection benefits. The VSR Trial of 2014 in the Santa Barbara Channel implemented by the District and partners reduced 12.4 tons of NO_x emissions, and the 2016 VSR incentive program in the Santa Barbara Channel region reduced 25.6 tons of NO_x emissions.

The 2017 VSR incentive program expanded to include speed-reduction zones in the San Francisco Bay area for the first time.

Three air districts, four national marine sanctuaries and two non-profit organizations participated in the 2017 program:

- Santa Barbara County Air Pollution Control District
- Ventura County Air Pollution Control District
- Bay Area Air Quality Management District
- Channel Islands National Marine Sanctuary
- Greater Farallones National Marine Sanctuary
- Cordell Bank National Marine Sanctuary
- Monterey Bay National Marine Sanctuary
- Volgenau Foundation
- National Marine Sanctuary Foundation

The program included two speed-reduction zones in the Santa Barbara Channel and San Francisco Bay regions between July 1 and November 15, 2017. Incentives of \$1,000 were offered to shipping companies for slowing down to 12 knots (in each region), with bonus incentives of \$250 for slowing to 10 knots or less. Funding for the incentives, including the administrative costs to the National Marine Sanctuary Foundation for overseeing payments to the shipping companies, totaled \$205,000. The District contributed \$40,000, which was approved by your Board in May 2017. Other contributing partners include the National Marine Sanctuary Foundation, Ventura County Air Pollution Control District, Bay Area Air Quality Management District, and Volgenau Foundation,

The 2017 Program reduced a total of 83.5 tons of smog-forming nitrogen oxides (NO_x), and 2,630 metric tons of greenhouses gases (carbon dioxide equivalent, or CO₂E) by successfully slowing 143 marine vessel transit trips. The majority of reductions (73.7 tons of NO_x) were achieved in the Santa Barbara Channel region, which had a much longer speed-reduction zone (100 nautical miles in the Channel region, as compared to 21-35 nautical miles for Bay Area zones).

As part of the 2017 program, the District studied whether vessels transiting between speed-reduction zones sped up to make up for lost time. Of the 68 participating transits that traveled between the Santa Barbara Channel and San Francisco Bay region zones, the data showed that 60 percent traveled slower in the area between zones as compared with previous 2016-2017 baseline speeds for that area, and 15 percent traveled at previous baseline speeds – a total of 75 percent of these vessels did not speed up in this area.

An award ceremony was held March 1st at the Bannings Landing Community Center near the Ports of Los Angeles and Long Beach to honor the eleven shipping companies that participated in the 2017 program. Attendees to the event also heard about the Protecting Blue Whales and Blue Skies Act (HR 3682), introduced in September 2017 by Congressman Alan Lowenthal. The Act would establish a national recognition program for shipping companies that voluntarily reduce speeds in the Santa Barbara Channel region. The partners are currently discussing the 2017 results and a possible 2018 program. If a program is confirmed, we will return to your Board with an update and any documents needed for program implementation.