2019 VESSEL SPEED REDUCTION PROGRAM: RESULTS

Board of Directors
Santa Barbara County
Air Pollution Control District
Our Mission: To protect the people and the environment of Santa Barbara County from the effects of air pollution.

Aeron Arlin Genet
Director / APCO

Molly Pearson, Planning Division Manager
June 18, 2020
Offshore emissions = onshore impacts
NOx and other pollutants
Over 100 miles of coastline in Santa Barbara County
2019 Ozone Plan
  Emission inventory for Marine Shipping
  Commitment to pursue VSR

(Source: 2019 Ozone Plan, Fig. 3-2)
PARTNERSHIPS

- Reduce impacts to air quality and whales
- Partners
  - 3 Air Districts
    - Bay Area, Ventura County, Santa Barbara County
  - 3 National Marine Sanctuaries
    - Channel Islands, Greater Farallones, Cordell Bank
  - 4 Non-Profit Organizations
    - California and National Marine Sanctuary Foundations
    - Volgenau Foundation
    - Environmental Defense Center
VESSEL SPEED REDUCTION (VSR) PROGRAM

- **Fifth-year of the VSR Program:** 2014, 2016, 2017, 2018, and 2019
- Asked companies to voluntarily slow down to 10 knots or less
- VSR season (May 15 - November 15) coincides with Ozone season & whales present off the California Coast
2019 VSR PROGRAM - ZONES

Vessel Speed Reduction Program
San Francisco Bay Area

- 10 KTS
- 10 KTS
- 10 KTS

Santa Barbara Channel Region
Vessel Speed Reduction Program

- 10 KTS OR LESS
- 10 KTS OR LESS

Map Source: NOAA Channel Islands National Marine Sanctuary

This map is not to be used for navigational purposes.
2019 VSR PROGRAM - CRITERIA

- Program is for containerships and auto carriers
- Vessels voluntarily travel at 10 knots or less
- Recognition Levels [Fleet-based]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sapphire</td>
<td>75-100%</td>
</tr>
<tr>
<td>Gold</td>
<td>50-74%</td>
</tr>
<tr>
<td>Silver</td>
<td>25-49%</td>
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<tr>
<td>Bronze</td>
<td>10-24%</td>
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</table>

- Over $250,000 in incentive funding
<table>
<thead>
<tr>
<th>Recognition Level</th>
<th>Company Name</th>
<th>Incentive Award</th>
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<tbody>
<tr>
<td>Sapphire</td>
<td>Mediterranean Shipping Company (MSC)</td>
<td>$50,000</td>
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<td>Hapag-Lloyd</td>
<td>$50,000</td>
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<td>Polynesia Line</td>
<td>$6,450</td>
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<td>Great American Lines Inc. (GALI)</td>
<td>$2,850</td>
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<td>Gold</td>
<td>Maersk</td>
<td>$26,000</td>
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<td>CMA-CGM</td>
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<td>COSCO</td>
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<td>Evergreen</td>
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<td>“K” Line</td>
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<td>NYK-RoRo</td>
<td>$15,500</td>
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<td>Pacific International Lines (PIL)</td>
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<td>Silver</td>
<td>Yang Ming</td>
<td>$4,500</td>
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<tr>
<td></td>
<td>Hyundai Glovis</td>
<td>$1,500</td>
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<tr>
<td>Bronze</td>
<td>Ocean Network Express (ONE)</td>
<td>$0</td>
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<tr>
<td></td>
<td>Matson</td>
<td>$0</td>
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# VSR Results – All Years

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
<tr>
<td><strong>Area</strong></td>
<td>Santa Barbara Channel</td>
<td>Santa Barbara Region</td>
<td>Santa Barbara Channel Region &amp; San Francisco Bay Area</td>
<td></td>
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<tr>
<td><strong># Companies</strong></td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>15</td>
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<tr>
<td><strong># Vessels</strong></td>
<td>14</td>
<td>25</td>
<td>44</td>
<td>280</td>
<td>349</td>
</tr>
<tr>
<td><strong>Slow-speed Distance (nautical miles)</strong></td>
<td>2,700</td>
<td>5,000</td>
<td>12,630</td>
<td>46,026</td>
<td>99,019</td>
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<tr>
<td><strong>NOx Reductions (tons)</strong></td>
<td>12.4</td>
<td>25.6</td>
<td>83.5</td>
<td>266</td>
<td>536</td>
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<tr>
<td><strong>GHG Reductions (metric tons)</strong></td>
<td>535</td>
<td>1,005</td>
<td>2,630</td>
<td>8,668</td>
<td>17,026</td>
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</table>
2019 VSR PROGRAM - RECOGNITION

- Award Ceremony postponed (April 3 – Port Hueneme)
- News Release in May 2020
- Website and fact sheet
- On-going recognition and awareness by partners
- Trade publications
FUTURE OF VSR

2020 VSR Program

- May 15, 2020 - November 15, 2020
- EPA grant funding through Ventura County APCD
- $60,000 roll-over in declined 2019 financial incentives
- Total program funds similar to previous years
- Expanded VSR zone consistent with NOAA voluntary zone map
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Project website:
www.ourair.org/air-pollution-marine-shipping