



Port of
LONG BEACH
The Green Port

Green Port Long Beach

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Port of Long Beach



The 2nd busiest in the nation, \$120 billion in trade,
supporting 1.4 million jobs nationally

Forward-looking policies

An aerial photograph of the Port of Long Beach, showing the harbor, shipping lanes, and surrounding urban areas. The port is filled with numerous ships, including large container vessels, and is surrounded by dense city development. The water is a deep blue, and the city is a mix of residential and commercial buildings.

Creating a Port of the Future that is shaping a vibrant Long Beach and prosperous goods movement industry

Public Support



The Port can only move ahead with its improvement projects with the support of the operators, community and political leaders

Green Port Policy



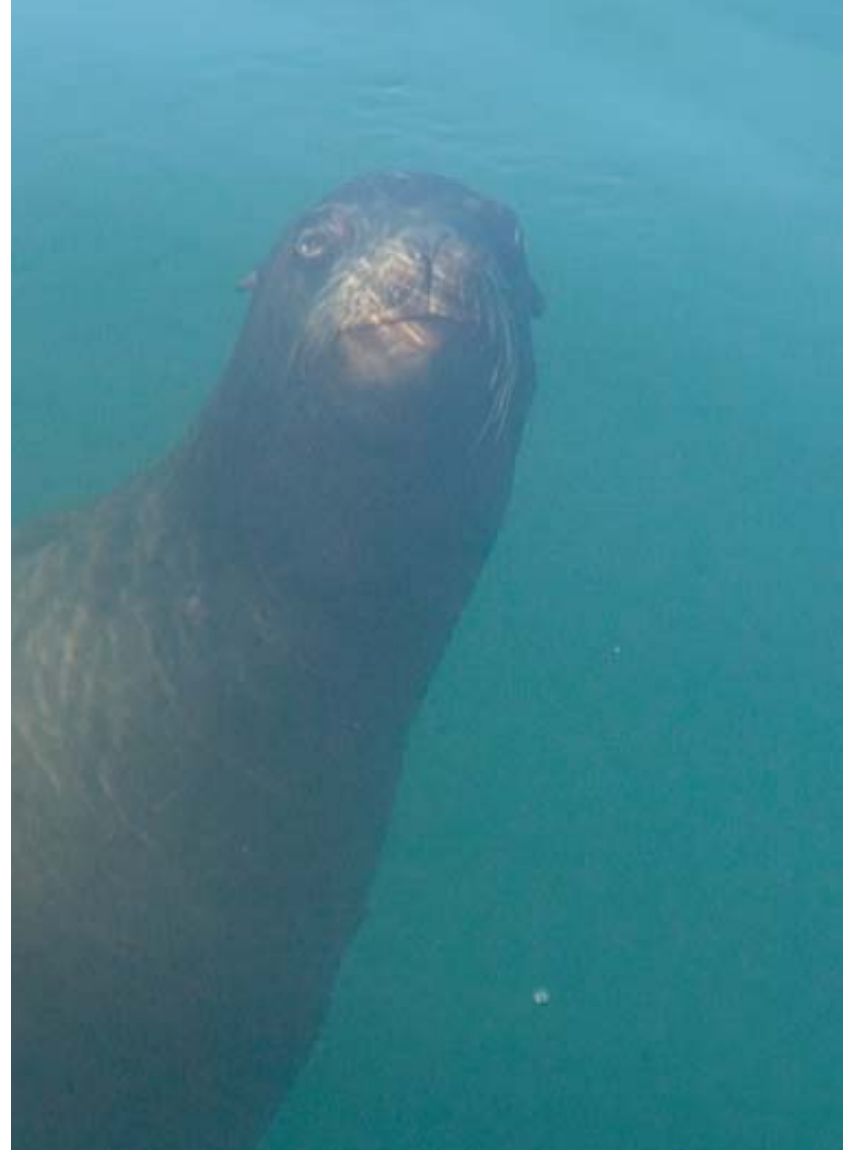
- Protect the community from negative Port impacts
- Distinguish Port as environmental leader
- Promote sustainability
- Employ best available technology
- Engage and educate the community

Green Port Policy Elements



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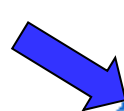
- Wildlife
- Air
- Water
- Soils/Sediments
- Community Engagement
- Sustainability



Sustainability at POLB



Minimize negative impacts on the community that result from port activities



Social

Bearable

Equitable

Sustainable

Viable

Environment

Economic

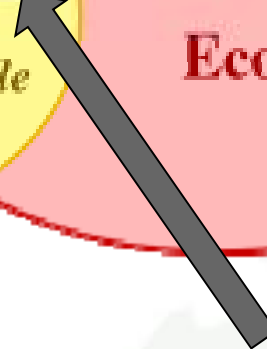
Collect and re-invest user fees to provide maximum operational efficiencies



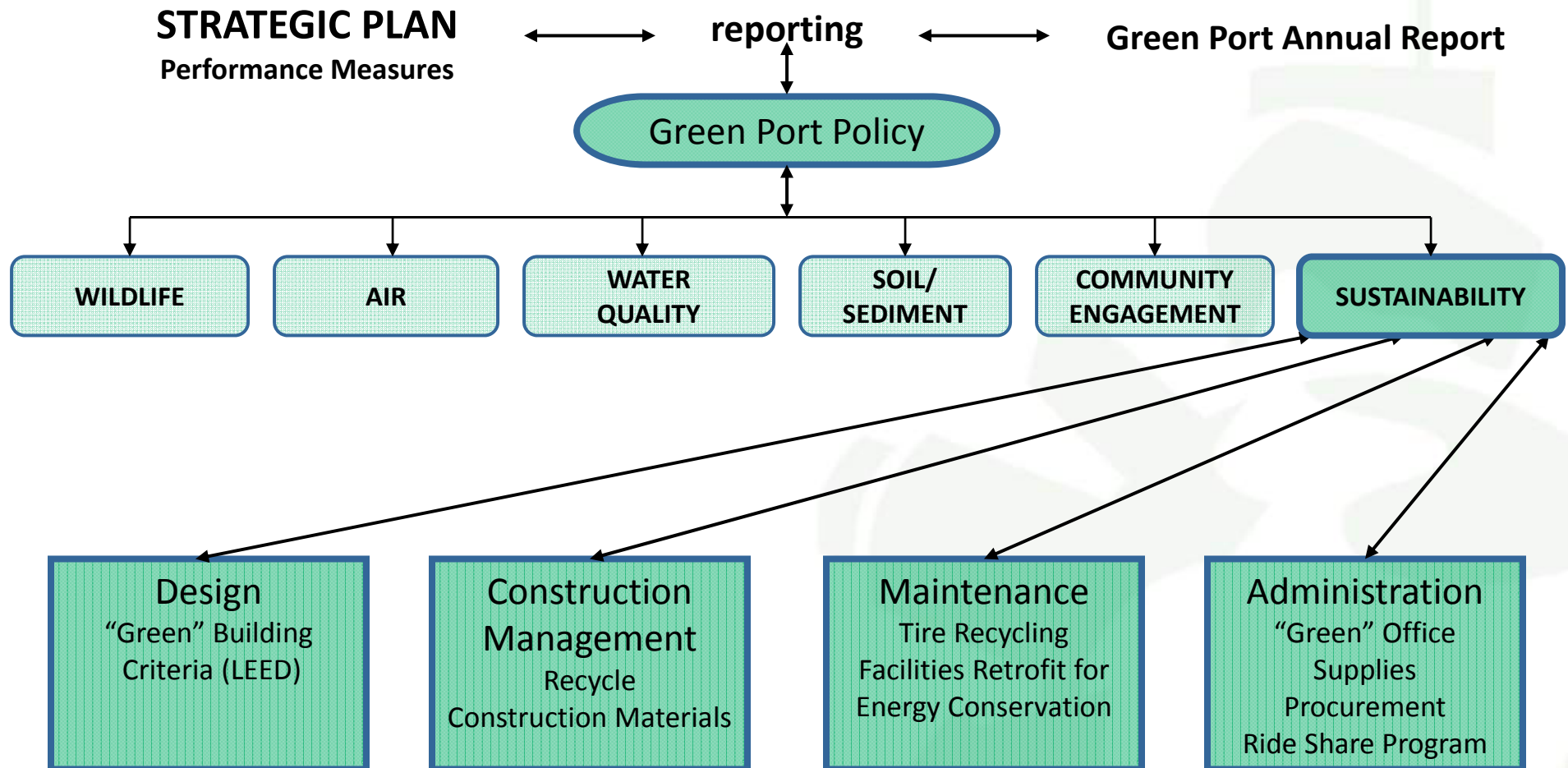
Comply with local, state and federal regulations



- Beyond compliance
- Healthy, thriving community
- Financially solvent



Integration of Sustainable Practices



CAAP Triple Bottom Line Features (TBL)



Social Responsibility

- Human health risk reductions
- Includes stakeholders in decision making
- Creates jobs
- Process is transparent
- Protects integrity of workers

Economic Responsibility

- Equitable distribution of financial burden
- Helps ports maintain "license to operate"

Environmental Responsibility

- Air quality improvements
- Energy/fuel efficiency improvements
- Advances new technologies
- Creates model for regulators and politicians
- Ecological health side benefits

Next Steps for Sustainability



- New programs and projects
- Assign goals, targets, and metrics
- Collaborate with City
- Share what we've learned with our tenants
- Provide incentives for sustainable operations





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Air Quality Programs

Framing the Issue



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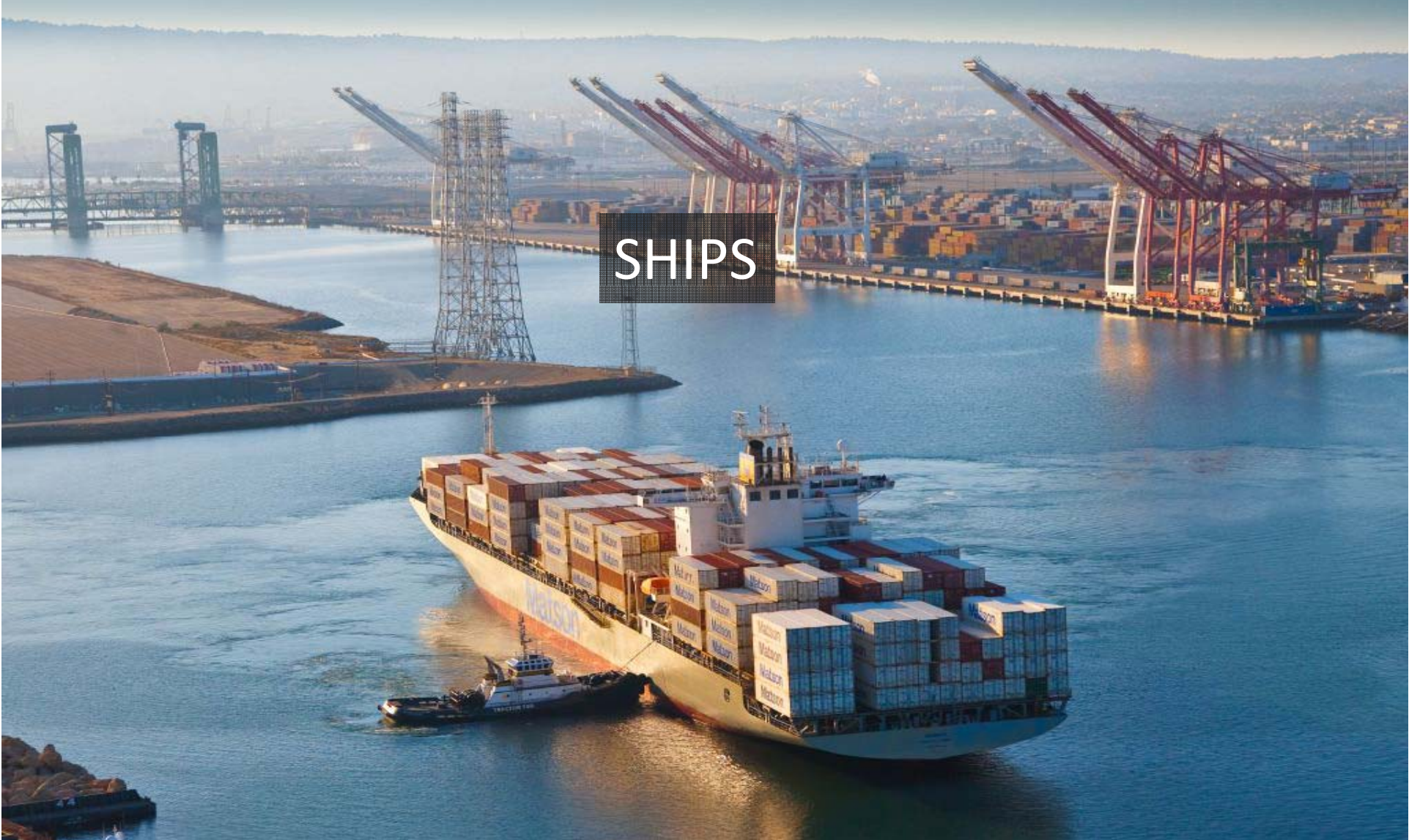
An aerial photograph of the Port of Long Beach, showing a large area of industrial activity, including numerous shipping containers, cranes, and large industrial buildings. The port is situated along a body of water, with a city area visible in the background.

**SIGNIFICANT INDUSTRIAL ACTIVITIES
LOCATED CLOSE TO COMMUNITIES**

Sources and Challenges



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SHIPS

www.polb.com

Sources and Challenges



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TRUCKS

Sources and Challenges



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HARBOR CRAFT

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LOCOMOTIVES



Sources and Challenges



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TERMINAL EQUIPMENT



Make a Plan...



Long Beach Green Port

The Port of Long Beach (POLB) is committed to a clean environment. In 2003, the Port adopted one umbrella known as the "Green Port" initiatives into four key areas of focus:

- Air
- Water
- Wildlife
- Soil/Sediment

In November 2004, the Board of Port Commissioners directed the development of a comprehensive environmental policy. The intended end product was an environmentally driven (e.g., green) policy to be used as a guide to facilitate the Port's operations within the framework of the BHC's requirements.

In response to the BHC's request, the Port dedicated an entire department to the optimization of existing environmental programs each with specific metrics for participation in these programs. The Healthy Harbor Program is that, in addition to the four on-going programs, the Port is currently implementing the Healthy Harbor Program - *Sustainability and Community*.

In late December 2004, the Board of Port Commissioners considered the draft environmental policy. The draft policy, if adopted, would constitute a policy and could be used as a guide to facilitate the Port's operations within the framework of the BHC's requirements.

- Specific environmental programs and activities
- A series of *goals* – for each program
- Specific *metrics* to measure progress
- Some *new aggressive* programs to improve progress toward the goals
- Specific *incentives* to promote participation
- Specific *legislative proposals*



Prepared with the participation of the California Air Resources Board



San Pedro Bay Ports Clean Air Action Plan 2010 Update



Air Quality Strategies



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Ships

Vessel Speed Reduction
Clean Fuels
Shorepower
Clean Ships

Air Quality Strategies



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Ships

Trucks

Clean Trucks Program

Clean Fuels

Air Quality Strategies



Ships

Trucks

Harbor Craft

Engine Replacement
Clean Technologies

Air Quality Strategies



Ships

Trucks

Harbor Craft

Locomotives

Engine Replacement
New Technologies

Air Quality Strategies



Ships

Trucks

Harbor Craft

Locomotives

Terminal Equipment

Equipment Replacement
Clean Fuels
New Technologies

Air Quality Strategies



Ships

Trucks

Harbor Craft

Locomotives

Terminal Equipment

Technology Advancement

In-Use Demonstrations
Zero Emission Technology

Reduced Air Pollution



Greenhouse Gas Emissions Down 18%

Nitrogen Oxides Down 46% 59%

Sulfur Oxides Down 73% 93%

Diesel Particulates Down 72% 77%

Reduce Cancer Risk by 85%



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Water Quality Programs

What is the WRAP?



Developed with, LARWQCB,
USEPA, and stakeholders

Documents the current conditions
of the harbors

Builds upon current Port water
and sediment quality programs
and initiatives

Framework for Port permits and
TMDL implementation



WRAP Goals



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Attainment of full beneficial
uses of harbor waters and
sediments

Prevent Port operations from
degrading existing water and
sediment quality

WRAP Control Measures



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Land Use
On Water
Sediment
Watershed



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Major Development Projects

Middle Harbor Redevelopment



Consolidate two irregular older facilities into
one efficient, larger terminal

Desmond Bridge Replacement



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\$950 million bridge would improve
traffic flow and increase safety



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Pier S Terminal Project



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**\$700 million “green” shipping terminal
would support 35,000 new jobs**

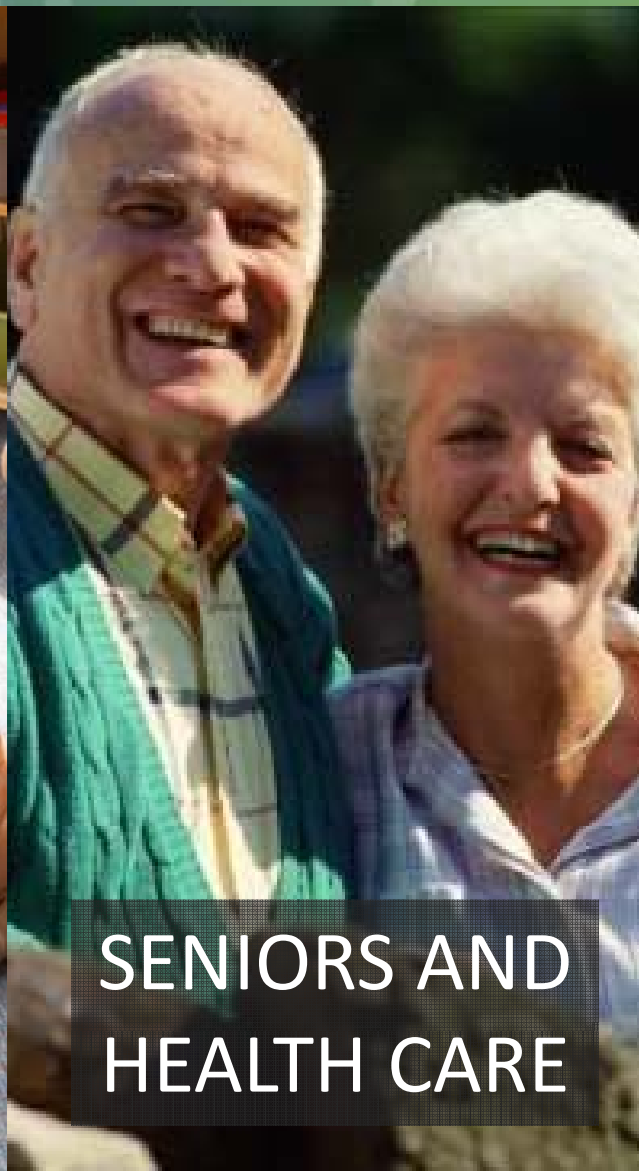


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Additional Mitigation



SCHOOLS



SENIORS AND
HEALTH CARE



GREENHOUSE
GAS