

Concepts for Other Sources

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Overview

- **Categories**
- **Emission Inventories**
- **Existing Programs**
- **Proposed Control Concepts**
- **Summary**



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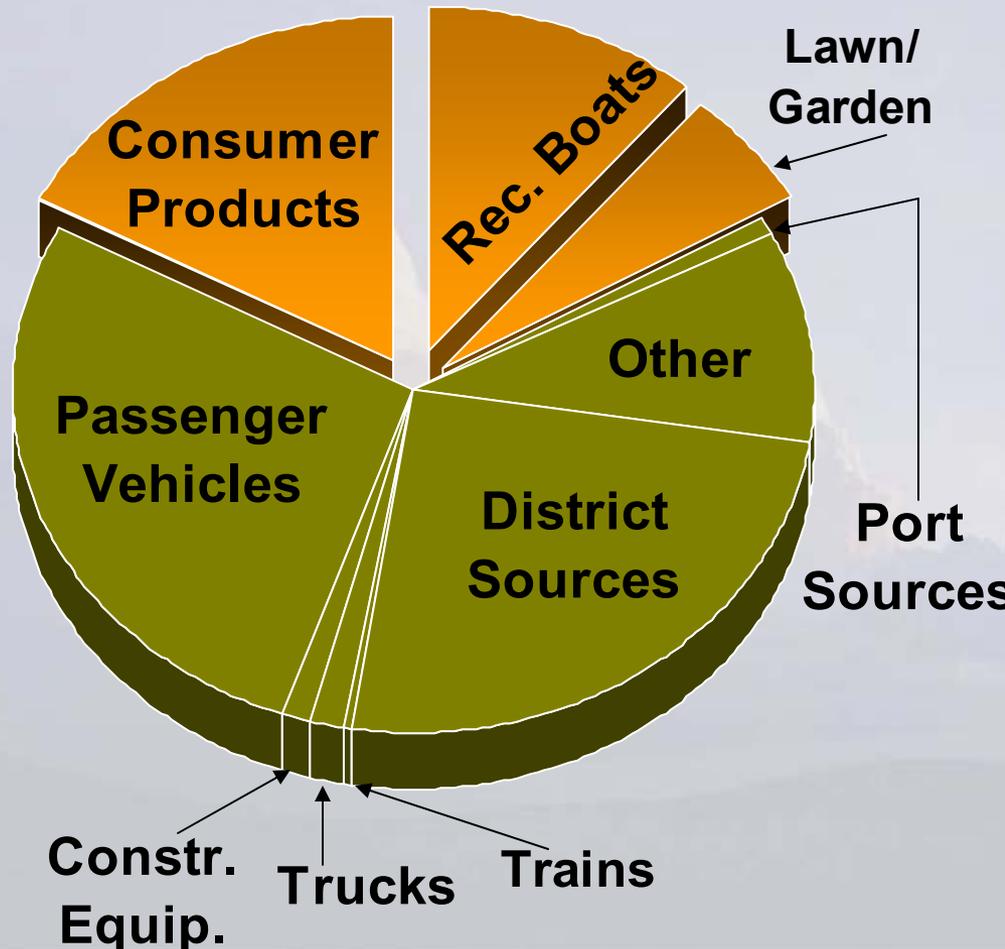
Categories

- **Recreational Boats and Personal Watercraft**
- **Off-Highway Recreational Vehicles**
- **Large Gas Engines**
- **Consumer Products**
- **Ground Support Equipment**
- **Lawn and Garden**
- **Other**



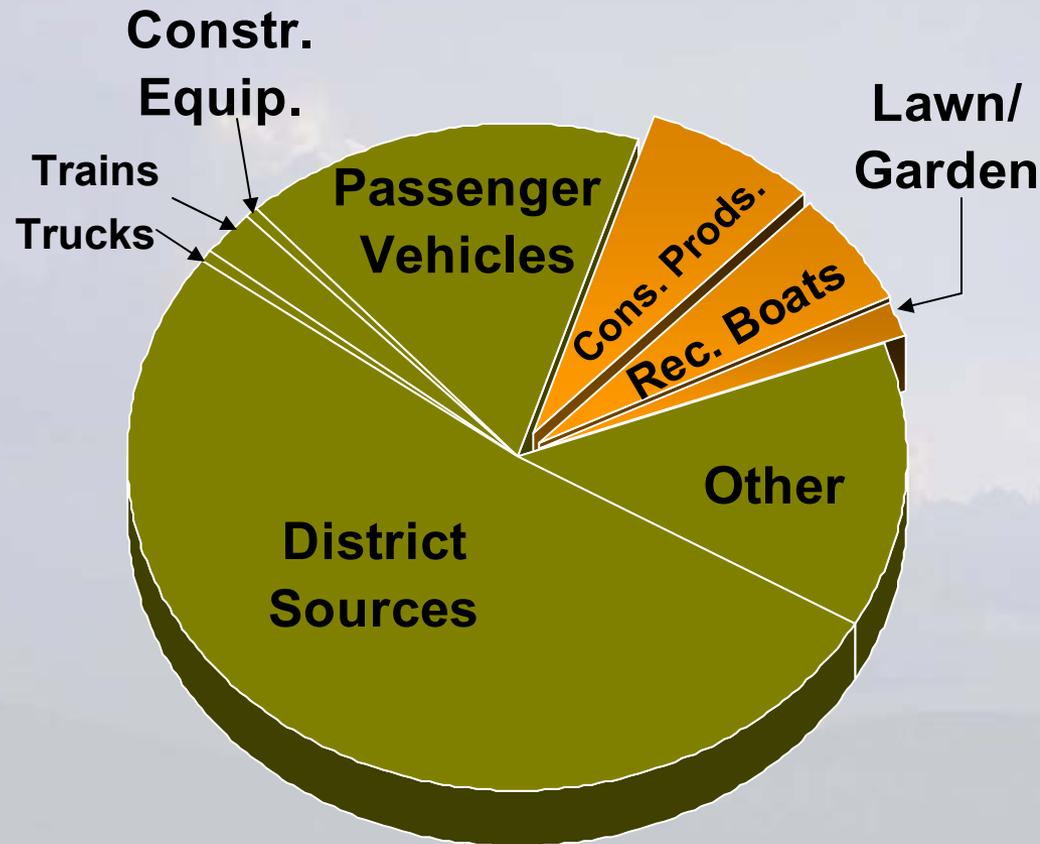
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South Coast 2015 ROG Emission Inventory



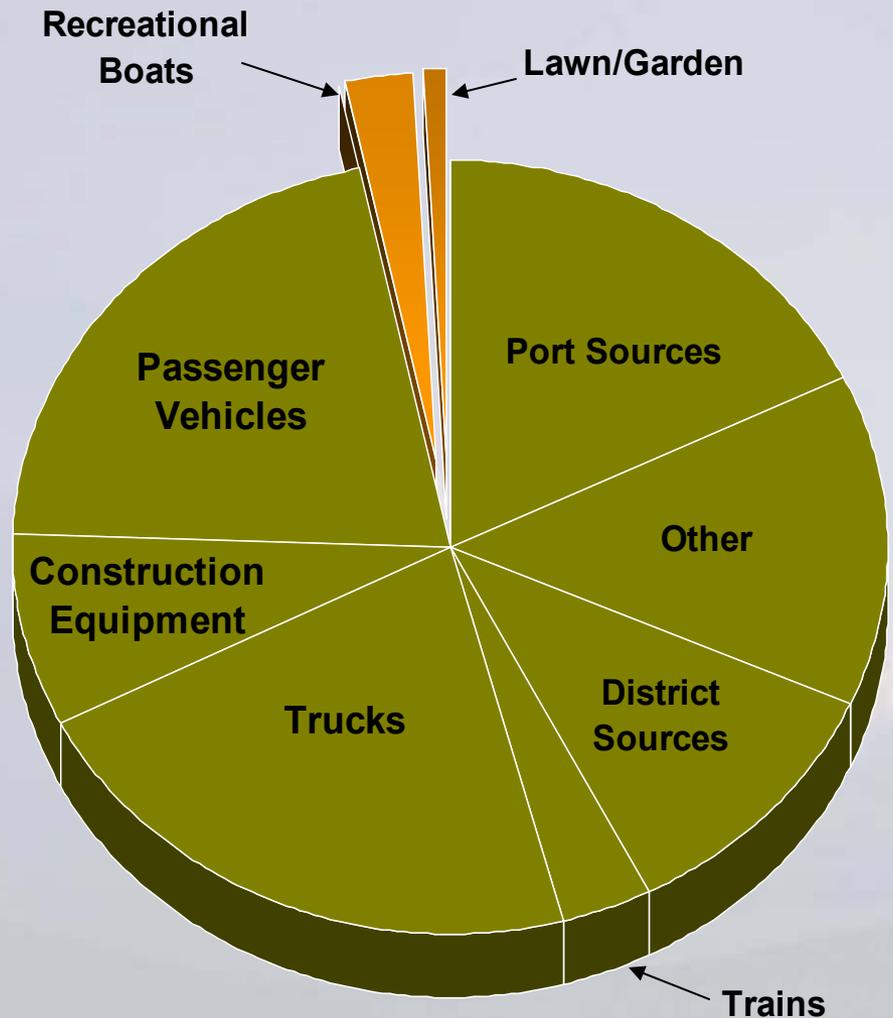
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San Joaquin Valley 2015 ROG Emission Inventory



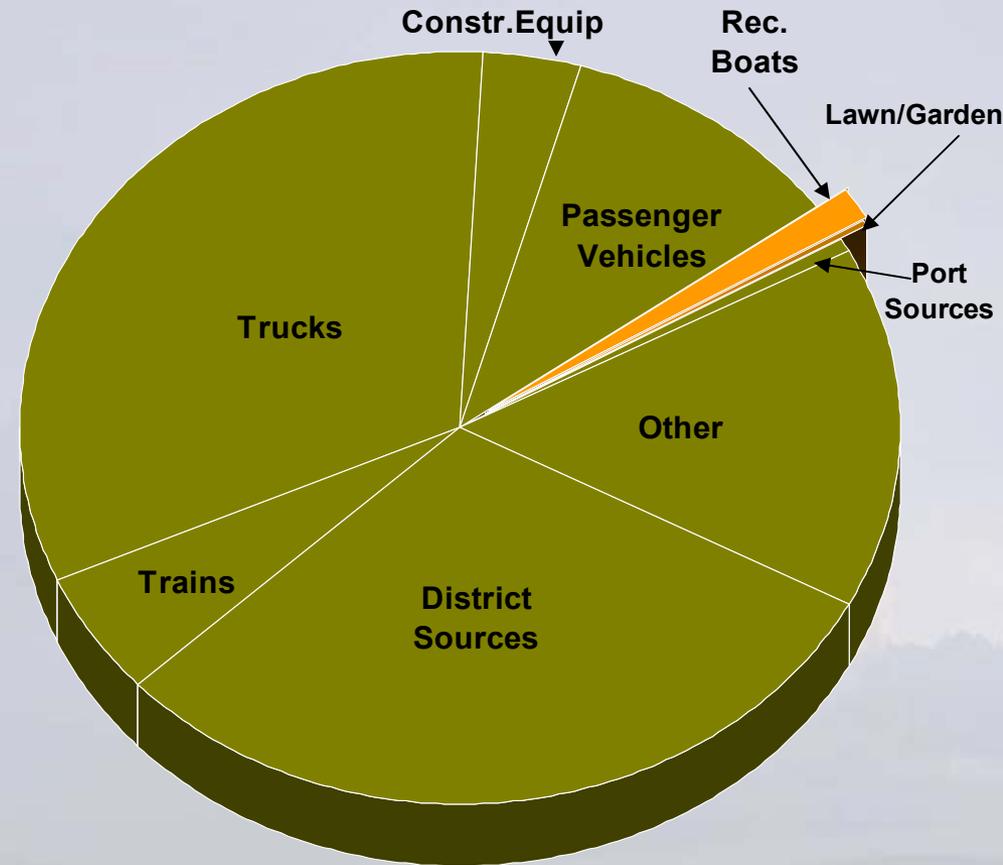
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South Coast 2015 NOx Emission Inventory



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San Joaquin Valley 2015 NOx Emission Inventory



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Existing Programs

- **Mostly uncontrolled until late 1990s**
- **Current standards achieve basic level of control; can be much tighter**
- **Control technology “migrates” from on-road vehicles**



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Proposed Control Concepts

- **Recreational Boats and Personal Watercraft**
 - Accelerate turnover of pre-1999 boats/PWCs
 - Lower exhaust standards for out-boards
 - Evaporative standards
- **Recreational Vehicles**
 - More stringent evaporative standards



Proposed Control Concepts (cont'd)

- **Consumer Products**
 - **Lower standards applied to more categories**
- **Other**
 - **Evaporative standards for miscellaneous sources**



Summary

- Source categories previously not tightly controlled or not at all
- Take advantage of control technology developed for on-road
- Goal: Ensure **all** sources have lowest exhaust and evaporative emission standards possible

