# EMS Is Our Lifestyle

Dr. Cris B. Liban, P.E., ENV SP Los Angeles County Metropolitan Transportation Authority August 9, 2017





# **Key Take-Aways**

- Vision is not enough
- Patience is a virtue
- It's how you package the gift that matters





# LA Metro is Los Angeles County's...



**Regional Transit Planner/Funder** 





**Regional Transit System Builder** 





**Regional Transit Operator** 



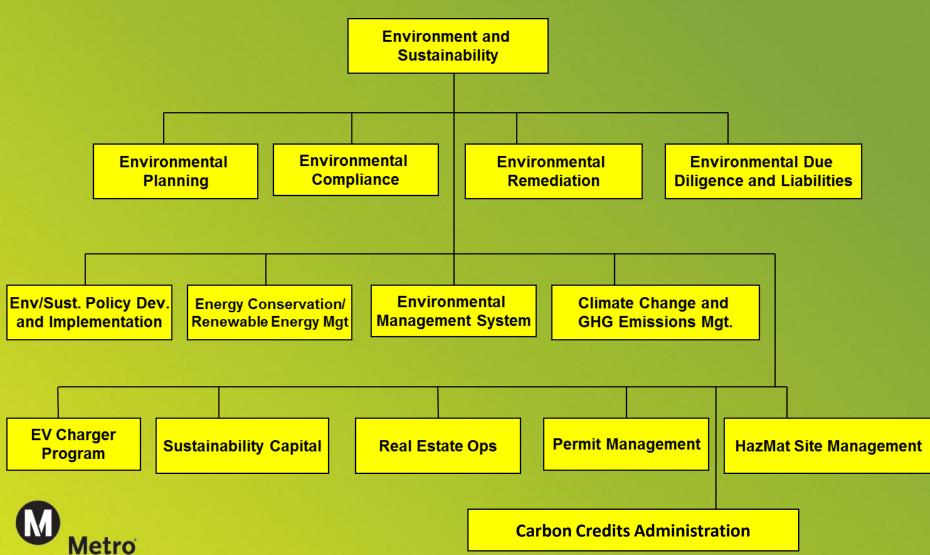
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# LA Metro's Challenges Reflects Overarching Needs

What's happening?	What needs to happen
Evolving regulatory requirements and extreme weather events	<u>Proactive</u> planning, construction, and operational activities to reduce impacts
Increasing costs of operation and decreasing resource availability	Create efficiencies, develop forecasting tools and implement <u>creative and</u> <u>integrated</u> technologies
Needing to build the right project	<u>Understand</u> the transit and technology interface considering environment, equity, and economy

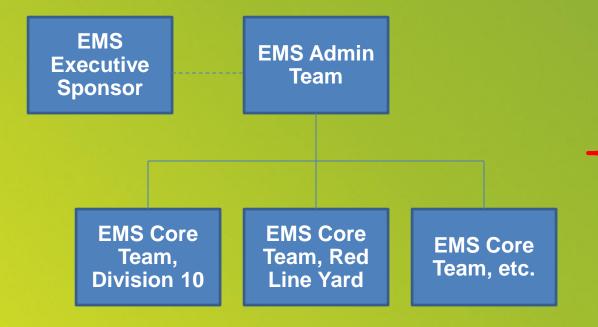


# **An Integrated Approach**









- **Environment**
- **Energy**
- **Climate Change**
- Resource Conservation/Mgt



Certified to the ISO 14001:2015 Standard in June 2016



## **Operational EMS**

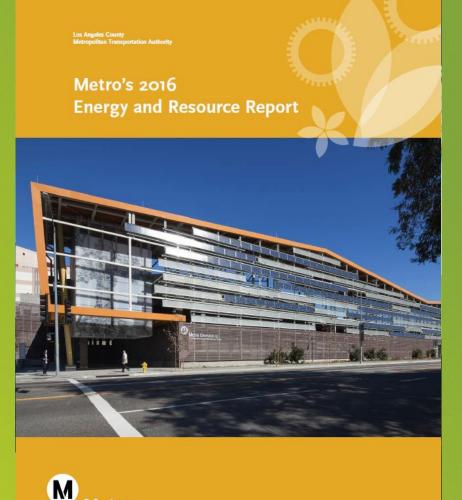
- ISO 14001:2015 Certified Environmental Management System
- Environmental Training Institute: <u>NTI Model Award</u>
- Use of Analytics for Continual Improvement
- Safe/Environmentally Friendly Work Environments
- Bottoms Up & Top Bottom
  - Empowerment
  - Develop Leadership
  - Create Efficiency
  - Genuine Care of Community
- Funding as "Investments"
- Up to \$4M in cost savings





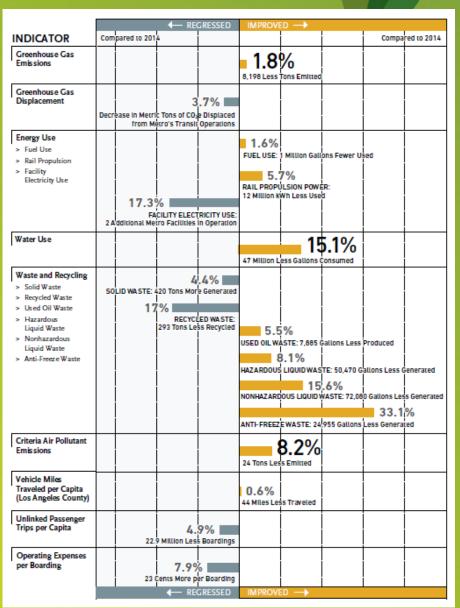
# **Energy, Water/Resource Conservation**

- Energy Policies and Plan
- Sustainable Rail Plan
- Sustainable Transportation Motion
- Water Action Plan
- Drought Motion
- Develop and Use Tools
- Telling the whole story





## **Environmental Performance**





# **Highlights**

- > Talking in the frontline jargon
- > Looking for the inspirational leader
- > Appealing to the human emotion
  - > We all win together, this is one EMS
- > We meet at different time intervals
- > Small wins add up to big wins





# LA Metro Service and Expansion: The New EMS





# **Crenshaw LRT Project**

- 8.5-mile 8-station Light Rail Line
- \$2.058 Billion
- Agency Firsts
  - Revamped Design Criteria/Specs
  - Sustainability Plan
  - Green Construction Policy
  - 2013 CalGreen with 2015 updates
  - Project Labor Agreement
  - Business Interruption Fund
  - Social Sustainability
- LAX Airport Connector
- Southwest Yard





## **Airport Connector**







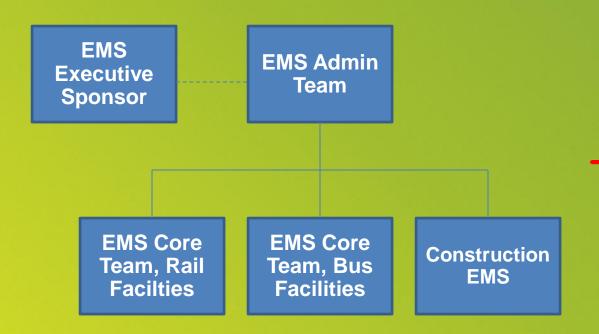
### **Southwest Yard**

- New maintenance facility at the southwest corner of Arbor Vitae/Bellanca near LAX.
- 70 light-rail vehicles (LRVs) with capacity for future build-out
- At least LEED-Silver Certification
- Low Impact Development strategies
- Energy Efficient and Resource Conscious Operations
- To be folded into existing EMS once completed







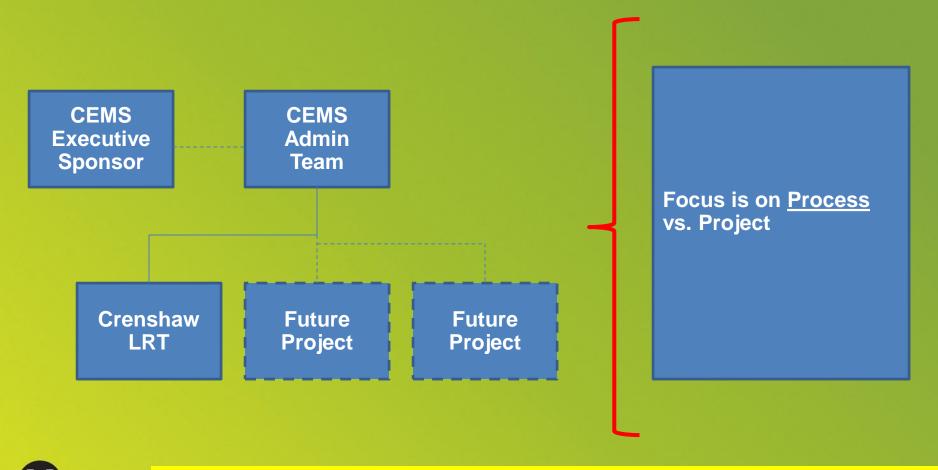


- Environment
- Energy
- Climate Change
- Resource Conservation/Mgt





# Construction EMS Structure:





Recommended for ISO 14001:2015 Certification in July 2017

# **Highlights**

- > Dust Control
- > Sediment Control and Stormwater
- Noise and Vibration
- > \$135,000 in Costs
- > At least \$400,000 (est) in savings
- > Greater Contractor Relationships
- > More orderly resolution of issues
- > Created a Green Workforce



Expansion into other capital projects
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### **Questions/Discussion**

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