

# Presentation to Tech Team



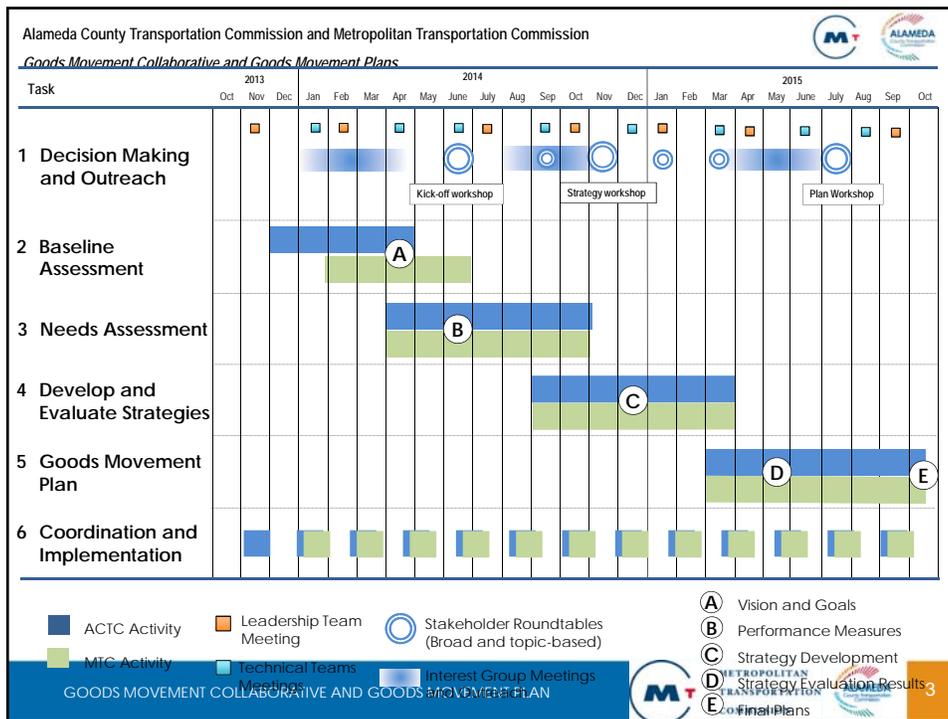
July 10, 2014

Alameda County Transportation Commission

## Project Approach

\* Decision Points





## Work Completed to Date

- Approved:
  - *Task 2a1 - Visions and Goals*
- To be reviewed and approved by Tech Team:
  - *Task 3a – Multimodal Performance Measures*
  - *Task 2a2 - Inventory of Existing Plans and Programming Documents (to be posted week of July 14, 2014)*
  - *Task 2c – Infrastructure, Services, and Demographics/Freight Flow Trends (to be posted week of July 14, 2014)*
  - *Request 2 week turn-around time for review*

## Work in Progress and Next Steps

- Work in Progress:
  - *Task 3b – Freight Forecasts and Growth in Freight Demand*
- Work initiated:
  - *Task 3c - Identify Gaps, Needs, and Deficiencies*
    - Data analysis of systems underway
    - Began local streets case studies work, and will outreach to cities

## Performance-Based Evaluation Process

## Building the Goods Movement Plan

1. Identify issues and needs through review of prior studies, stakeholder interviews, and other discussions
2. Develop vision and goals
3. Refine and identify priority issues and needs through industry analysis and travel forecasts.
4. Review and “truth test” issues analysis with stakeholders in interest group meetings and roundtable workshops
5. Develop and evaluate projects, programs and policies that address priority issues
6. Create Goods Movement Plan through interest group meetings, roundtable workshops, and other discussions
7. Analyze and communicate the overall performance of the Goods Movement Plan



## Identifying strategies

- A **portfolio of strategies** that will address the needs, issues, and opportunities of goods movement functional elements together
  - *Projects*
  - *Programs*
  - *Policies*

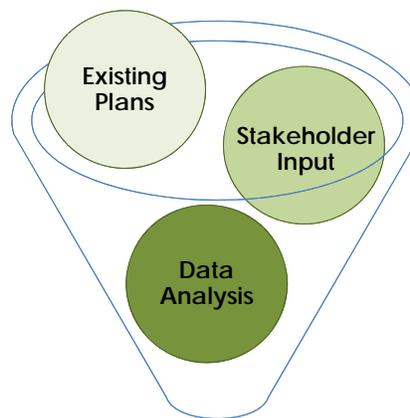


## Identifying projects, programs and polices

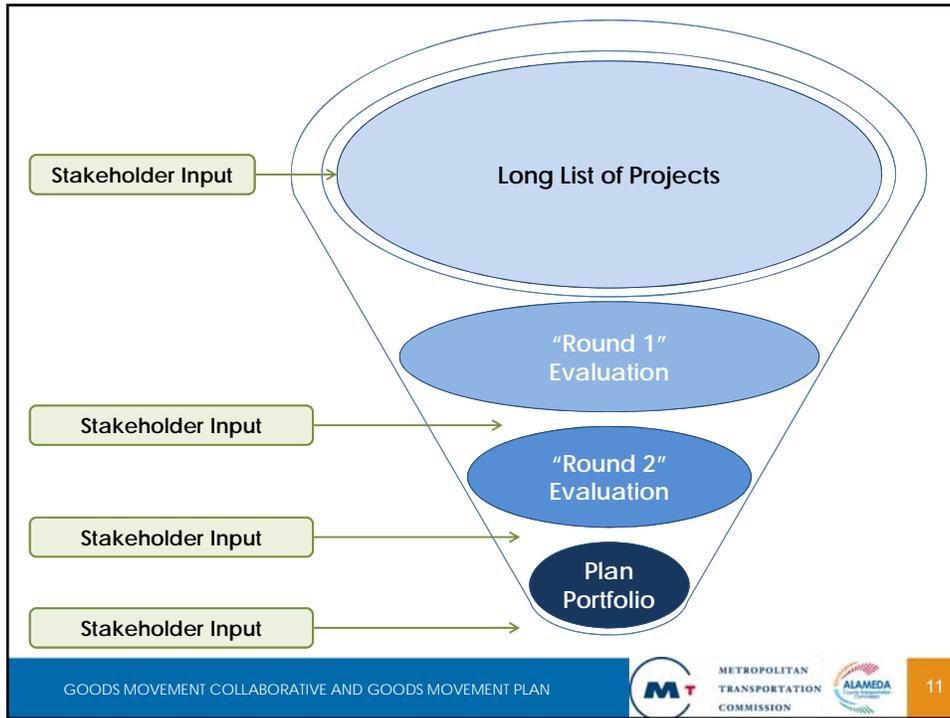
| Needs, Issues, or Opportunities   | Example Strategy                                   | Example Projects, Programs, or Policies  |
|---|--|--|
| <ul style="list-style-type: none"> <li>Increasing congestion on I-880 and I-580 truck corridors</li> <li>No public truck stopping or parking locations in Alameda County</li> </ul> | <p>Improve Truck Mobility, Access, and Parking</p> | <ul style="list-style-type: none"> <li>Various projects including interchange improvements, lane additions, ramp metering, service patrols, etc.</li> <li>Reexamine STAA Designated Routes</li> <li>Additional Truck Rest Areas</li> <li>Truck Stop Electrification</li> </ul> |

## Projects, programs and policies

- Various sources ...
  - Existing plans – county, state and local
  - Stakeholders
  - Analysis conducted during Plan development
- Analysis will be based on qualitative and quantitative methods



Long List of Projects,  
Programs, Policies



## "Round 1" Evaluation

- Does project, program or policy link to Plan Vision and Goals?
- Does project, program, policy link to goods movement issues and needs?
- Are all goods movement functional element issues addressed?
- Does project have sufficient goods movement benefits to be considered for more detailed analysis?
- Are there interdependent projects that can be combined? Are there gaps requiring development of new projects?

Stakeholder Input and List Refinement

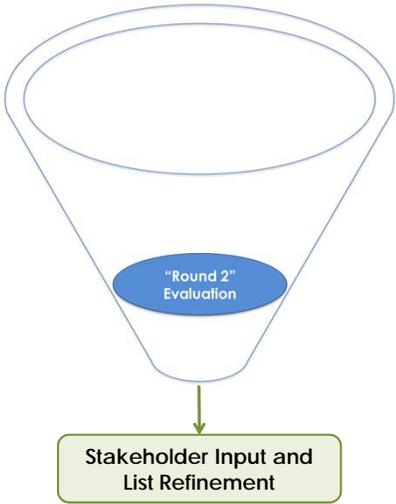
GOODS MOVEMENT COLLABORATIVE AND GOODS MOVEMENT PLAN

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## "Round 2" Evaluation



- Use performance measures to articulate project, program, policy benefits and how they meet Goods Movement Plan goals
  - *Prior analysis done by other parties*
  - *Travel analysis and modeling tools*
  - *Qualitative assessments of potential benefits*
- Create project, program and policy tiers based on performance evaluation
  - *High, Medium, Low*
- Advance high performance projects, programs and policies

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## Performance Evaluation

### *Objective –High Performance*

| Goal                          | Projects, Programs and Policies |   |   |
|-------------------------------|---------------------------------|---|---|
|                               | A                               | B | C |
| Integrated, multimodal system | ●                               | ● | ● |
| Safety                        | ●                               | ● | ● |
| Increase jobs/economy         | ●                               | ● | ● |
| Environment                   | ●                               | ● | ● |
| Innovative Technology         | ●                               | ● | ● |

● = High
● = Medium
● = Low

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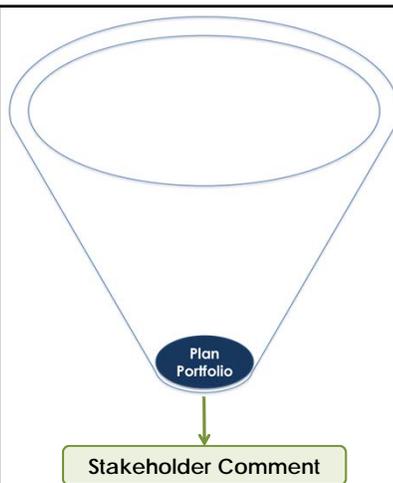
# Performance Evaluation

## Objective –High Performance

- Enhance the recommended project, program or policy
- Mitigate conditions

| Goal                          | Projects, Programs and Policies |   |   |
|-------------------------------|---------------------------------|---|---|
|                               | A                               | B | C |
| Integrated, multimodal system | ●                               | ● | ● |
| Safety                        | ●                               | ● | ● |
| Increase jobs/economy         | ●                               | ● | ● |
| Environment                   | ●                               | ● | ● |
| Innovative Technology         | ●                               | ● | ● |

● = High      ● = Medium      ● = Low



## Plan Portfolio

- Evaluate full portfolio of strategies (programs, policies, and projects)
- Identify mitigations for negative impacts
- Confirm a "balanced portfolio" of recommendations
  - *Vision and Goals met*
  - *Issues and needs addressed*
  - *System functions addressed*

# Sample Cut Sheet

| <b>Project # 18</b> SR-152 Bypass around the City of Los Banos  |   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
|---|---|---|----------------------|----------------------|------------|----------------|---|---------|-----------------------------|----------|---|--|--------------------------------------|---|---|--|--|
| <b>Project Summary</b>  |   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| <p>The SR 152 corridor provides a viable alternative for handling expected increases in truck movement on the already congested I-580/I-238/I-880 corridor. Santa Clara, San Benito, Merced, and Madera counties are working to improve SR 152 to a full freeway between SR 101 and SR 99. This would result in reliable and predictable east-west flow of goods. The first phase includes construction of the SR 152 Bypass/Northern Realignment around City of Los Banos.<br/> <b>Estimated cost: \$510 Million</b></p> |   | <table border="1"> <thead> <tr> <th colspan="2">Goal Areas Addressed</th> </tr> </thead> <tbody> <tr> <td>✓</td> <td>Congested / Deteriorated Infrastructure</td> </tr> <tr> <td></td> <td>Transportation Modal Choice</td> </tr> <tr> <td>✓</td> <td>Environmental / Community Impacts of Goods Movement</td> </tr> <tr> <td></td> <td>Connections to International Markets</td> </tr> <tr> <td>✓</td> <td>Ensure East-West and Local Connectivity</td> </tr> <tr> <td></td> <td>Build a System to Support Economic Development</td> </tr> </tbody> </table> |                      | Goal Areas Addressed |            | ✓              | Congested / Deteriorated Infrastructure |         | Transportation Modal Choice | ✓        | Environmental / Community Impacts of Goods Movement |  | Connections to International Markets | ✓ | Ensure East-West and Local Connectivity |  | Build a System to Support Economic Development |
| Goal Areas Addressed  |   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| ✓   | Congested / Deteriorated Infrastructure             |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
|   | Transportation Modal Choice                         |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| ✓   | Environmental / Community Impacts of Goods Movement |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
|   | Connections to International Markets                |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| ✓   | Ensure East-West and Local Connectivity             |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
|   | Build a System to Support Economic Development      |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| <b>Benefits</b>   |   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| <b>Category of Benefit</b>  | <b>Mobility</b>                                     | <b>Economic</b>   | <b>Environmental</b> |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| <b>Relative Ranking</b>   | High  | High  | High                 |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| <p><b>Mobility Benefits:</b><br/>           High - Estimated savings of 290 truck hours per day.</p>  |   | <p><b>Other Benefits:</b><br/>           The project is located on a key east-west corridor. These corridors are vital to the movement of intra-regional goods, which comprise almost 50% of all goods moving throughout the San Joaquin Valley.</p>  |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| <p><b>Economic Benefits:</b><br/>           High - The direct economic benefits of this project are estimated at \$7.2 million per year driven by truck time savings of 290 hours per day. These savings would translate to an estimated 53 jobs, \$10.6 million in additional output, and \$419,000 million in additional state and local taxes.</p>   |   | <table border="1"> <caption>Goods Movement Distribution</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Intra-regional</td> <td>49%</td> </tr> <tr> <td>Inbound</td> <td>28%</td> </tr> <tr> <td>Outbound</td> <td>23%</td> </tr> </tbody> </table>  |                      | Category             | Percentage | Intra-regional | 49%                                     | Inbound | 28%                         | Outbound | 23%   |  |                                      |   |   |  |  |
| Category  | Percentage  |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| Intra-regional  | 49%   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| Inbound   | 28%   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| Outbound  | 23%   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |
| <p><b>Environmental Benefits:</b><br/>           High - The project reduces total NOx emissions by 54kg/day and NOx emissions from trucks by 7 kg/day. The project raises the NOx/VMT by .07 g/VMT.</p>   |   |   |                      |                      |            |                |   |         |                             |          |   |  |                                      |   |   |  |  |

Source: SJV Goods Movement Plan



# Goods Movement Performance Measures



## Goods Movement Vision and Goals



## Goods Movement Vision and Goals



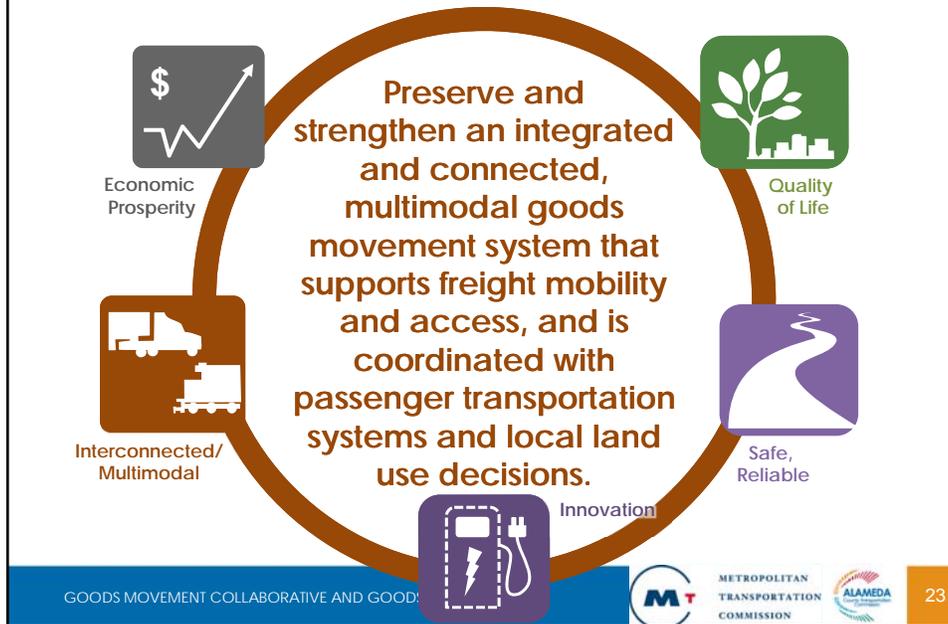
## Goods Movement Vision and Goals



## Goods Movement Vision and Goals



## Goods Movement Vision and Goals



## Recommended Performance Measures

**Economic Prosperity** - Increase economic growth and prosperity that supports communities and businesses.

| Measures              | Metrics                   |
|-----------------------|---------------------------|
| Economic Contribution | Jobs and output generated |

**Quality of Life** - Reduce environmental and community impacts from goods movement operations to create healthy communities and a clean environment, and improve quality of life for those communities most impacted by goods movement.

| Measures                            | Metrics   |
|-------------------------------------|---|
| Emissions/Air Quality/Public Health | Tons of GHG emissions   |
|                                     | Tons of PM emissions  |
| Equity                              | Freight Impacts, such as light, noise pollution, safety, air pollution and encroachment on adjacent communities |

## Recommended Performance Measures

**Safe, Reliable** – Provide safe, reliable, efficient and well-maintained goods movement facilities.

| Measures                          | Metrics  |
|-----------------------------------|--|
| Travel Time Reliability           | Buffer time index on key freight (truck) routes  |
| Freight-Related Crashes           | Truck-involved crashes and crash rates   |
|                                   | Crashes at at-grade rail crossings   |
| Freight Infrastructure Conditions | Bridge conditions ratings  |
|                                   | Key freight (truck) highway and arterial routes pavement conditions ratings                              |
| Freight Resiliency                | Addresses freight system vulnerability to major service disruptions due to major natural or other events |

## Recommended Performance Measures

**Innovation** - Promote innovative technology strategies to improve the efficiency of the goods movement system.

| Measures                       | Metrics                                |
|--------------------------------|--|
| Use of Innovative Technologies | Use of ITS and innovative technologies |
|                                |  |

## Recommended Performance Measures

**Interconnected/Multimodal** - Preserve and strengthen an integrated and connected, multimodal goods movement system that supports freight mobility and access, and is coordinated with passenger transportation systems and local land use decisions.

| Measures                               | Metrics   |
|--|---|
| Travel Time Delay                      | Travel time delay on key freight (truck) routes   |
|  | Travel time delay on railways, terminals, ports, airports   |
| Multimodal Connectivity and Redundancy | Freight generator access to freight routes  |
|  | Freight generator access to rail lines, terminals, ports, and airports                            |
| Coordinate with Passenger Systems      | Freight system element shares use with passenger system and addresses passenger/freight conflicts |
| Compatibility with Land Use Decisions  | Freight generator proximity to non-compatible land uses   |

## Discussion

- Did we touch on all key issues for which we need performance measures?
- What is the appropriate balance of quantitative and qualitative performance measures?
- Are there measures you recommend?