

COMMUTER RAIL

Strategic Planning Consulting Services



Agenda

1. Welcome and Introductions
2. Overview of Commuter Rail Strategic Plan Project
3. Results of Previous CRSG Meetings
 - #1 – Project Purpose
 - #2 - SWOT and Goals
 - #3 – Action Plans
4. Implementation Framework
 - Railroads, Governance, Funding
 - Concept System Plan
 - Implementation Scenarios
5. Panel Discussion and Q/A
6. Next Steps



Project Issues and Purpose Statement

Overall Purpose:

To develop an implementation strategy for commuter rail service in Maricopa County and northern Pinal County. The overall goal is to prepare a Commuter Rail Strategic Plan for adoption by the MAG Regional Council.



Project Issues and Purpose Statement – CRSG #1

Key Reasons to Consider Commuter Rail Service

- **Growth of population and employment.**
- **Travel demand growth and increasing congestion in primary travel corridors.**
- **Provide range of travel choices.**
- **Desire to reinforce local and regional land use plans.**
- **Availability of existing railroad alignments.**
- **Increase in the cost of fuel and travel.**
- **Reduce air pollutants and use of resources**
- **Promote economic sustainability.**

Strategic Plan Development Process – CRSG #2 and #3

- **SWOT (Strengths, Weaknesses, Opportunities, Threats) Process**
 - Identification of SWOT Factors
 - Definition of Proposed Goals and Objectives
 - Development of Action Plans

Strategic Plan Development Process – CRSG #2

- **Results of SWOT Process:**
 - Were able to organize into six “high priority” factors
 - Regional Growth
 - Multimodal Opportunities
 - Existing Land Use and ROW
 - Cost and Affordability
 - Sustainability
 - Public and Private Cooperation
 - Found few differences across Sub-areas

Proposed Goals for Commuter Rail Strategic Plan – CRSG #2

- 1) Employ Commuter Rail to Shape Growth**
- 2) Improve Transportation Mobility Opportunities by Implementing Commuter Rail**
- 3) Provide a Seamless and Cost Effective Commuter Rail Option**
- 4) Promote Sustainability through the Implementation of Commuter Rail**
- 5) Increase Public/Private Cooperation to Implement Commuter Rail**

Strategic Plan Development Process – CRSG #3

- **Development of Action Plans**
 - Action Plans developed to support Goals
 - Action Plans defined to include Action, Owner, Partners and Timeframe
 - High Priority Action Plans identified

Strategic Plan Development Process – CRSG #3

| Goal | Action Item | Owner | Time |
|--|--|--------------------------------------|-----------------------|
| 1. Employ CR to shape growth | Stimulate economic development | Development community | 10 to 15 years |
| 2. Improve mobility options with CR | Provide reliable and integrated alternative | Partnership; MAG, ADOT | Start now |
| 3. Provide seamless and cost-effective option | Identify and preserve ROW; Conduct further study of funding | Governments | Now |
| 4. Promote sustainability | Assess Air Quality w/ and w/out CR | ADOT, MAG, Cities | 18 months |
| 5. Increase public/private cooperation | Establish formal agreements | MAG and Northern Pinal County | Now |

Implementation Framework

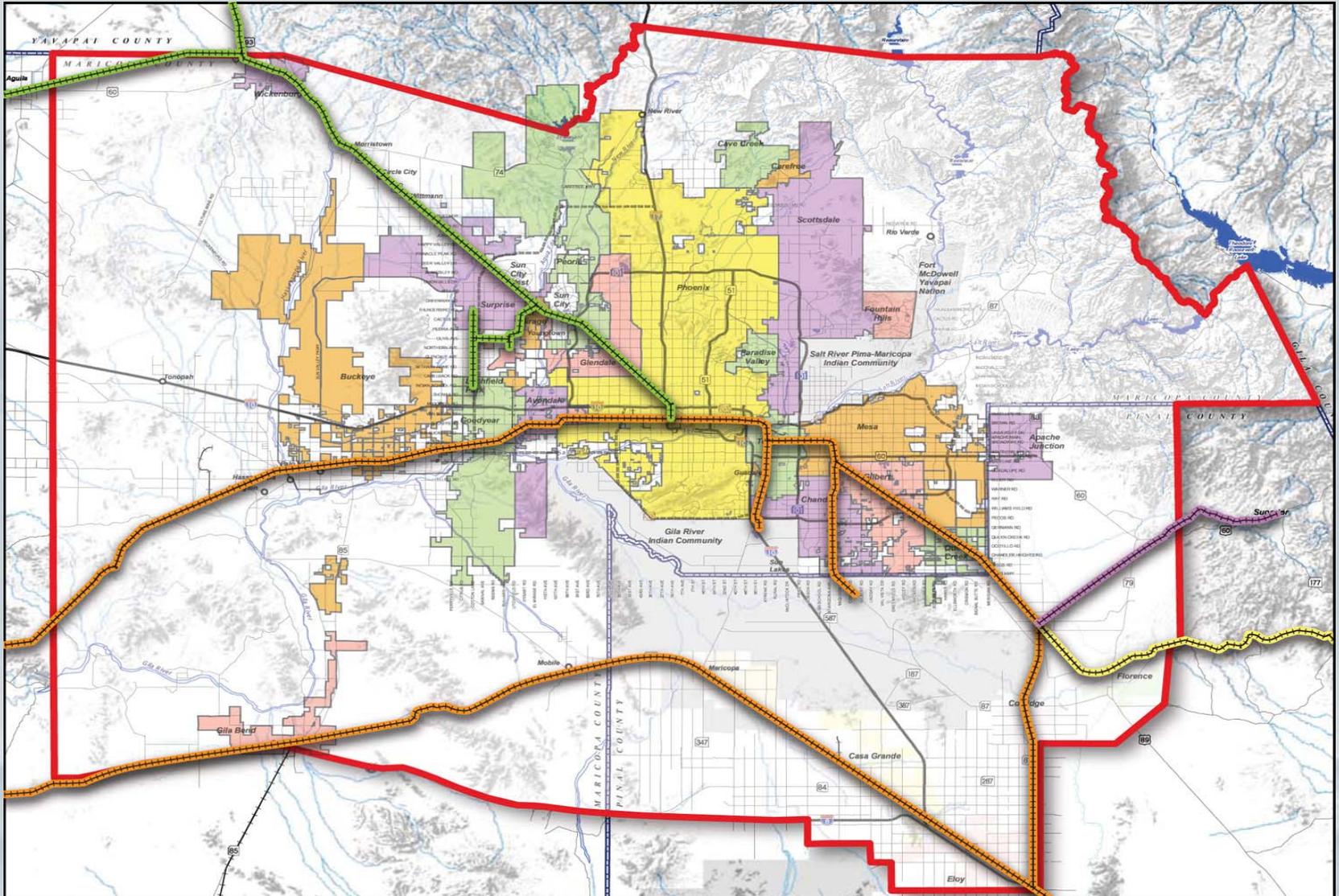
- **Concept System Plan**
- **Implementation Requirements**
- **Implementation Scenarios**
 - **Get Started**
 - **Starter System**
 - **Regional System**

Concept System Plan

- Concept Plan to illustrate scope and context for commuter rail
- Developed from MAG High Capacity Transit Study



Existing Railroad Alignments



Concept Corridor Description

| Corridor - Line | One-Way Miles | CR Travel Time | Auto Travel Time | Peak Hour Riders | Highway Lanes Replaced |
|---------------------|--------------------------|----------------|------------------|------------------|------------------------|
| BNSF – Grand | 26 (54 to Wickenburg) | 45 mins. | 65 mins. | 3,600 | 3.5 |
| UP Main- Chandler | 28 (38 to Coolidge) | 45 mins. | 55 mins. | 3,600 | 1.8 |
| UP Main – Southeast | 32 (74 to Eloy) | 50 mins. | 55 mins. | 3,600 | 1.8 |
| UP Main – Tempe | 17 (29 to Maricopa) | 45 mins. | 60 mins. | 3,600 | 1.8 |
| UP Yuma - West | 31 | 40 mins. | 52 mins. | 3,600 | 1.8 |

Implementation Requirements

- **Governance and Administration**
 - Policy, Construction and Operations
 - Roles and Responsibilities
- **Railroad Cooperation**
 - Purchase or Capacity Rights Agreements
- **Funding and Finance**
 - Sources and Uses
 - Regional Priorities



Peer System Comparisons

| System | Length (Miles) | Cost/ Mile | Peak Trains | Railroad | Admin - Gov | Funding |
|--------------------------------------|--|------------------|----------------|-------------------------------|------------------------------|--------------------------------|
| Front Runner Salt Lake City | Ogden – 45 Provo – 80 | \$ 10 M TBD | 6/2 6/2 | UP – Bought ROW | UTA – Transit Agency | Local, Regional, Federal |
| Rail Runner Albuquerque | Belen to Bernalillo – 35 Santa Fe – 60 | \$ 4 M \$ 6 M | 3/3 | BNSF – Bought ROW | NMDOT – State | State |
| Northstar Minneapolis | Big Lake – 40 | \$ 8 M | 5/1 | BNSF – Lease track | MnDOT – State | Local, State, Federal |
| FasTracks Denver | Northwest – 41 North Metro – 20 | \$14 M \$30 M | 8/8 8/8 | BN – Lease UP – Buy ROW | RTD – Transit Agency | Local, Regional, Federal |
| Washington County, Portland | Washington County – 18 | \$ 8 M | 5/1 | BN – Bought ROW | Tri-Met Transit Agency | Regional, Federal |

Implementation Scenario – Get Started

| Definition | Example |
|--|---|
| Single Corridor | Northstar – MN; 40 miles from downtown Minneapolis northwest to Big Lake along Highway 10 |
| One railroad agreement; ROW lease or purchase | Leased track rights from BNSF for 6 trains per peak period |
| Lower cost with shared track/facilities | Improved track for railroad; added stations, purchased locomotive trains and bi-level cars |
| Simple approach to governance in corridor | Joint powers authority with Anoka County and State |

Implementation Scenario – Starter System

| Definition | Example |
|---|---|
| More than one Corridor | Salt Lake City; from downtown north 45 miles to Ogden and south 80 miles to Provo |
| Could be more than one railroad agreement; ROW lease or purchase | Purchased 120 miles from UPRR; leasing some joint operating rights |
| Moderate cost with single track and/or shared track and facilities | Rebuilt tracks for service, added stations, purchasing locomotive trains and bi-level cars |
| More complex approach to governance with multiple jurisdictions | One overall authority as UTA; requires participation by all jurisdictions in 3 county region |

Implementation Scenario – Regional System

| Definition | Example |
|--|---|
| Implement in multiple Corridors at same time | Denver FasTracks; 41 miles Denver to Boulder/Longmont, 18 miles North Metro, 38 miles Airport/Gold |
| Complex system would require separate facilities ROW lease or purchase | Separate negotiations with UPRR and BNSF for purchase and lease of numerous properties |
| Most costly with separate track/facilities; some lines could share tracks | Separate freight tracks for North Metro and Airport/Gold; Freight shared with Northwest |
| Complex governance; would require regional agreements | One overall authority as RTD; requires participation by all jurisdictions in 7 county region |

Conceptual Implementation Scenarios – Operating Characteristics

| Scenario | Operations | Daily Rider Capacity | Potential VMT Saved |
|------------------------|--|---|---|
| Get Started | Peak – 5/1 Mid-Day – 1 Evening - 1 | 10,100 riders per day | 60 to 65 million Vehicle Miles of Travel saved per year |
| Starter System | Peak – 5/1 Mid-Day – 1 Evening - 1 | 10,100 per corridor; 20,200 riders per day total | 125 to 130 million VMT saved per year |
| Regional System | Peak – 6/3 Mid-Day – Hourly Evening - Hourly | 47,000 per corridor; 141,000 riders per day total | 800 to 900 million VMT saved per year |

Conceptual Implementation Scenarios – Cost Characteristics

| Scenario | Conceptual Capital Costs | Operating Cost Subsidy |
|-----------------|--|--|
| Get Started | \$50 M to \$400 M for minimum facilities; typically uses leased track rights | Typically 50 to 65 % of operating costs |
| Starter System | \$100 M to \$800 M for moderate facilities; combination of leased and purchased | Typically 50 to 65% of operating costs; will decline with more trains/riders |
| Regional System | Moderate to substantial facilities from \$400 M to more than \$2 B; includes purchase of ROW | Typically less than 50% of operating cost; additional capacity at low incremental cost |

Conceptual Implementation Scenarios Compared to CRSP Goals

| CRSP Goal | Get Started | Starter System | Regional System |
|---|-------------|----------------|-----------------|
| Employ Commuter Rail (CR) to Help Shape Growth | | | |
| Improve Transportation Mobility Opportunities | | | |
| Provide a Seamless and Cost Effective System | | | |
| Promote Sustainability through CR Implementation | | | |
| Increase Public/Private Cooperation to Implement CR | | | |

Implementation Framework – Panel Discussion

- Question and Answer

Implementation Framework

- **Next Steps**
 - **Summary of CRSG Process**
 - **Development of Implementation Steps**
 - **Review by MAG Committees**
 - **Final Products**

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